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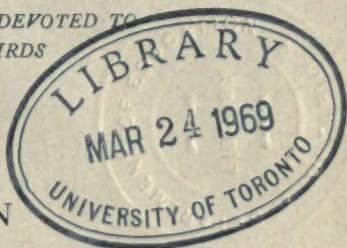
ARTHUR A. ALLEN

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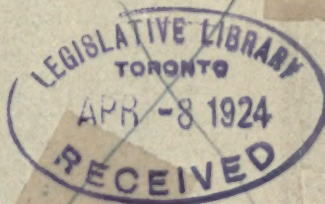


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INDEX TO ARTICLES IN VOLUME XXV BY AUTHORS

- Aaron, Madeleine, Secretary, Report of, 474.
 Abbott, Clinton G., Christmas Census, 45.
 Abbott, Cyril E., Report of, 480.
 Achorn, Warren, President, Report of, 504.
 Aldrich, John Warren, Mockingbird in Rhode Island, 125.
 Allen, Amelia S., San Francisco Region, 53, 201, 268, 407.
 Allen, Arthur A., Another Year, 59; A Christmas Walk with Birds, 60; Bird Communities, 142; April in the Marshes, 143; Daisy Fields in June, 207; Summer Bird-Study, 215; August Shores, 274; Suggestions to Teachers, 214, 282; When the Wild Ducks Fly, 338; Ring Out the Old, 414; A Few Suggestions for Attracting Birds and Feeding Them During the Winter Months, 420.
 Allen, Elsa G., Treasurer, Report of, 485.
 Allen, John R., Christmas Census, 25.
 Allen, Robert P., Christmas Census, 26.
 Allin, A., see Gould, M. G.
 Allyn, Vance, see Pierce, Fred J.
 Anderson, Edwin C., Christmas Census, 40.
 Andrews, Bernice, see McGinley, Muriel.
 Ankeney, Helen, Christmas Census, 34.
 Anthony, A. W., Christmas Census, 45.
 Anthony, Mrs. Bertha, Christmas Census, 44.
 Arkin, Frank, The Mockingbird's Winter Song, 306.
 Athey, P. W., Christmas Census, 28.
 Atwell, George C., Christmas Census, 10; Secretary's Report, 477.
 Ayres, Douglas, Christmas Census, 16.
 Ayres, Mrs., Ex-Secretary, Report of, 508.
 Bagg, Aaron C., Christmas Census, 11.
 Bailey, Mrs. H. H., see King, Mrs. E. R.
 Bair, Hobart, An Interesting Hole, 347.
 Baird Ornithological Club, Christmas Census, 25.
 Baker, H. D., photograph by, 290.
 Baker, Wallace, see Doolittle, E. A.
 Ballard Normal School, Christmas Census, 28.
 Barbour, Robert, Christmas Census, 23.
 Barnew, Bailey, Christmas Census, 23.
 Barwick, F. A., The Starling in Ontario, 249.
 Bates, Mrs. Frank G., Bohemian Waxwings and Robins in Lewis County, N. Y., 125.
 Battles, C. D., and H. T. Kimball, Christmas Census, 43.
 Baynard, O. E., photograph by, 71.
 Beard, Theodore R., Christmas Census, 42.
 Beck, Herbert H., Christmas Census, 24.
 Bedell, Edgar, Christmas Census, 17; Winter Birds at Waterford, N. Y., 392.
 Beebe, Ralph, Christmas Census, 20; Speed of Flight of Birds, 189; A Brick and Tile Martin House, 250.
 Belknap, John B. and R. H., Christmas Census, 11.
 Bender, Paul, see Yoder, Edward.
 Bergtold, W. H., Christmas Census, 42; Denver Region, 52, 135, 199, 265, 329, 405.
 Bernower, Mrs. P. J., Christmas Census, 31.
 Bicknell, Mrs. F. T., President, Report of, 492; photograph by, 492.
 Billings, Clara Jaeger, To a Caged Mockingbird, 175.
 Bird Lovers' Club of Brooklyn, Christmas Census, 18.
 Blaisdell, Maurice E., Christmas Census, 10.
 Blincoe, Ben J., Christmas Census, 32; Gnatcatchers Attacked Cowbird, 253.
 Blodgett, George L., Christmas Census, 10.
 Bolt, B. F., and Dix Teachenor, Kansas City Region, 134.
 Borton, Alfred C., see Linton, M. Albert.
 Boulton, Rudyerd, and Ludlow Griscom, Christmas Census, 20.
 Bourne, Thomas L., Christmas Census, see Savage, James.
 Bowdish, Beecher S., Secretary, Report of, 478.
 Bowers, Elizabeth F., October 12 in Chicago, 350.
 Brewer, O. C., Christmas Census, 27.
 Brooks, Earl, Christmas Census, 35.
 Brooks, Fred E., A. B., and Maurice G., Christmas Census, 28.
 Brower, A. E., Christmas Census, 39.
 Brown, Alice B., Secretary, Report of, 481.
 Brown, Clair A., Loom Nests, 316.
 Bruce, Walter, Bird-Life in the Sans Poil Valley, Washington, 390.
 Bruen, Frank, and Royal W. Ford, Christmas Census, 14.
 Bull, Henry, Christmas Census, 14.
 Bullard, Mrs. B. F., Secretary, Report of, 506.
 Burgess, Dr. H. C., Christmas Census, 16.
 Burkinshaw, Mrs. C. H., Secretary, Report of, 487.
 Burnett, Elizabeth, Christmas Census, 44.
 Buttrick, Claude A., Christmas Census, 25.
 Button, Lily Ruegg, and Nettie C. Ruegg, Christmas Census, 40.
 Calvert, E. W., Christmas Census, 9.
 Campbell, Mrs. Mamie, Christmas Census, 44.
 Cannon, Alta I., A Wood Thrush Story, 320.
 Card, Helen L., Christmas Census, 13.
 Cartwright, Wm. J., Christmas Census, 12.
 Case, Clifford M., Christmas Census, 14.
 Caskey, R. C., Christmas Census, 21.
 Cavanness, Sallie and Virgie, Christmas Census, 39.
 Cavett, Dorothy, An Active Junior Audubon Club in Grant School, Des Moines, Iowa, 216.
 Chace, Leda W., Nuthatch Wisdom, 395.
 Chafin, Beebe Thompson, Our Winter Guests, 375.
 Chapin, Mrs. J. T., Christmas Census, 39.
 Chapman, Frank M., reviews by, 56, 139, 204, 271, 272, 334, 410, 411; editorials by, 58, 141, 206, 273, 337, 413; Notes on the Plumage of North American Birds, 128, 244, 389.
 Childs, Helen P., Secretary, Report of, 470.
 Childs, Henry E., Secretary, Report of, 480.
 Chrishofferson, K., Christmas Census, 29.
 Christie, Edward H., Christmas Census, 38.
 Christy, Bayard H., and Frank A. Hegner, Christmas Census, 25.
 Christy, Bayard H., President, Report of, 507.
 Church, Stanley C., Secretary, Report of, 499.
 Clarke, N. T., Christmas Census, 45.
 Cleaves, Howard H., Christmas Census, 28; Secretary's Report, 515.
 Clement, Harold J., Starlings at Watkins, N. Y., 240.
 Cleveland, Lotta A., Robins and Cicadas, 254.
 Cogswell, Margaret E., The Ways of Jays, 394.
 Collins, Henry H., see Scoville, Gordon T.; A New Jersey Mockingbird, 396.
 Compton, Mrs. C. N., Christmas Census, 43.

- Cook, Fannie S., *Bohemian Waxwings in Northern New York*, 188.
- Cooke, Joseph, *Christmas Census*, 27.
- Coon, W. Edwin, *Fours—Right!*, 317.
- Copeland, Ada B., *Christmas Census*, 42.
- Coultas, W. F., see *Weeks, L. T.*
- Crandall, Oliver, *Notes on The Birds of Wasco County, Eastern Oregon*, 350.
- Crosby, Maunsell S., *Christmas Census*, 15; review by, 410; *President's Report*, 501.
- Cross, Alice, *The Joys of a Bird-Table*, 313.
- Crow, Andrew, see *Harbaum, Frank*.
- Crumb, M. G., *Our Robin Family*, 321.
- Curtis, Paul, *A Scarlet Tanager Family*, 351.
- Cutter, Lucia B., *Christmas Census*, 10.
- Daley, Mary Wood, *Audubon's Farm*, 231.
- Danforth, Ralph E., *Feeding Habits of the Northern Shrike*, 308.
- Danforth, Stuart T., *Christmas Census*, 22.
- Danner, Mrs. May S., *Christmas Census*, 31.
- Davis, Edwin Russell, *Christmas Census*, 11.
- Davis, Mrs. Eva N., *Secretary, Report of*, 494.
- Dawson, E. W., *Christmas Census*, 41.
- Dean, R. H., *Christmas Census*, 40; *Pine Siskins in Alabama in the Winter of 1922-23*, 394.
- Dellinger, Mr. and Mrs. S., *Christmas Census*, 39.
- Derby, Mrs. Ethel Roosevelt, *Secretary, Report of*, 482.
- Devoe, Alan Taylor, *Flicker vs. Robin*, 397.
- Dickinson, Stirling, *Our Pet Birds*, 352.
- Dix, W. L., *Christmas Census*, 34.
- Dixon, Gertrude E., see *McCracken, Vera*.
- Donaghbo, Walter, *Christmas Census*, 28.
- Doolittle, E. A., and Wallace Baker, *Christmas Census*, 33.
- Doolittle, E. A., *The Disposition of the Catbird*, 252.
- Doolittle, Maude, see *Roper, Mrs. William*.
- Dressel, Evan C., *Christmas Census*, 34.
- DuBois, A. Dawes, *The Nest Studies of McGown's Longspur*, 95.
- Duer, H. E., *Christmas Census*, 32.
- Dunbar, Robert D. and Lula, *Christmas Census*, 30.
- Earle, Grace K., and Osborne, *Christmas Census*, 27.
- Earle, Osborne, *Christmas Census*, 11.
- Eaton, E. H., *Christmas Census*, 16.
- Eby, Mrs. H. W., and Mrs. Geo. R. Harper, *Christmas Census*, 34.
- Edson, A. W., *Christmas Census*, 16.
- Edson, Wm. L. G., *Christmas Census*, 16.
- Eisenmann, Eugene, *Christmas Census*, 18.
- Eklaw, George E., and Sidney Christmas Census, 35.
- Eliot, W. A., *Christmas Census*, 44.
- Elliot, Sarah J., *Secretary, Report of*, 513.
- Elliott, Mrs. Irah T., *Secretary-Treasurer, Report of*, 469.
- Fargo, Wm. G., *Christmas Census*, 29; *The Marsh Hawk in Southern Michigan*, 305; *Birds Seen in Florida in February 1923*, 381.
- Ferguson, Jessie; Dicky, *An Orphan Robin*, 112.
- Finley and Bohlman, photographs by, 73, 76, 221, 453, 456.
- Finley, Wm. L., *Field Agent, Report of*, 451; photograph by, 455.
- Fisher, M. L., *Christmas Census*, 34.
- Fitzpatrick, Fred L., see *Stoner, Dayton*.
- Forbush, E. H., photograph by, 77; *Field Agent's Report*, 449.
- Ford, Royal W., see *Bruen, Frank*.
- Fordyce, George L., *Christmas Census*, 34.
- Foreman, Grant, *The Story of Dicky and Ruby*, 117; *Bird-Feeding Towers of Ahmedabad*, 302.
- Foster, G. S., *Song-Bird Week in Manchester, N. H.*, 183.
- Fowler, Gladys, *A Hummingbird Incident*, 247; *Birds in Busy Chicago*, 315.
- Fox, Henry, see *Stubbs, Francis E.*
- French, Mr. and Mrs. Harold P., *Christmas Census*, 19.
- Frey, Edith K., *Christmas Census*, 20.
- Friedman, R., and L. N. Nichols, *Christmas Census*, 17.
- Friedmann, Herbert, *The Evening Grosbeak at Ithaca, N. Y.*, 372.
- Friend, Orville, *Christmas Census*, 27.
- Fuertes, Louis Agassiz, *Colored plates by, facing*, 1, 95, 167, 231, 295, 367.
- Gabrielson, Ira N., *Portland Region*, 52, 135, 200, 267, 331, 407.
- Galde, Henry, see *Yoder, William E.*
- Gander, Frank E., *A Scoter Patient*, 317.
- Ganier, Albert F., *Christmas Census*, 38.
- Geist, Robert, *Christmas Census*, 31.
- Gillespie, John S., *Christmas Census*, 23.
- Gillespie, William W., *Christmas Census*, 24.
- Gilliam, R. A., photograph by, 310.
- Gillingham, Donald, photograph by, 380.
- Gleason, J. M., see *Wright, J. Howard*.
- Goode, Harriet U., and Harry G. Higbee, *Christmas Census*, 12.
- Gordon, Robert, *Christmas Census*, 32.
- Gormley, Liguori, and Charles MacNamara, *Christmas Census*, 8.
- Gould, M. G., and A. Allin, *Christmas Census*, 9.
- Goy, Albert, *Christmas Census*, 39.
- Graham, Louisa Boyd, *Birds from a Sleeping-Porch*, 391.
- Grange, Wallace B., *Christmas Census*, 30.
- Grant, Glen, *Christmas Census*, 16.
- Grant, W. W., *Christmas Census*, 16.
- Gratwick, William, photograph by, 241.
- Graves, Frances Miner, *Christmas Census*, 15.
- Green, Miss M. S., *Secretary, Report of*, 501.
- Gressley, L. H., *Christmas Census*, 33.
- Griscom, Ludlow, see *Boulton, Rudyerd*.
- Guest, Mrs. Marjorie, *Christmas Census*, 40.
- Hadzor, Rae T., *A Grouse Refuge*, 318.
- Haines, Charles D., *Making Friends with a Tanager*, 319.
- Hallett, George H., and Mary Spencer Lee, *Christmas Census*, 26.
- Hamilton Bird Protection Society, *Christmas Census*, 9.
- Hammond, Nellie B., *The Story of Bob, the Cardinal*, 116.
- Harbaum, Frank, and Andrew Crow, *Christmas Census*, 32.
- Harkins, Ina Mary, *Christmas Census*, 41; *Secretary's Report*, 511.
- Harper, Francis, and Robert Cushman Murphy, *Christmas Census*, 13.
- Harper, Mrs. Geo. R., see *Eby, Mrs. H. W.*
- Harrington, Alice B., *Observations on the Mockingbird at Dallas, Texas*, 310.
- Harris, Harry, *Kansas City Region*, 51.
- Hastings, Walter E., photograph by, 423.
- Hathaway, Harry S., *Christmas Census*, 13.
- Hathorn, Glen M., *Christmas Census*, 36.
- Haulenbeek, R. F., *Christmas Census*, 22.
- Heacock, Esther, *Secretary, Report of*, 518.

- Healey, Alden, Christmas Census, 11.
 Hegeman, Mrs. Charles S., Christmas Census, 23.
 Hegler, Marie Ellis, The Whisper-Song of a White-crowned Sparrow, 186; The Whistling Catbird, 252.
 Hegner, Frank A., see Christy, Bayard H.
 Hellstern, Edward, Christmas Census, 42.
 Henderson, C. A., photograph by, 454.
 Henderson, Mrs. H. H., Christmas Census, 16.
 Herman, Dr. Wm. C., Dual Nest of the Robin and Brown Thrasher, 127.
 Higbee, Harry G., see Goode, Harriet U.
 Hix, George E., Roy Thompson and Bernard Nathan, Christmas Census, 18.
 Hobbs, Kelsie, Christmas Census, 41.
 Hoffman, John, Christmas Census, 23.
 Holland, Harold M., Young Sparrow Hawks, 185.
 Holt, Ernest G., Christmas Census, 40.
 Holt, Julia Libby, A Partridge Nest, 347.
 Holtz, Mathilde, Christmas Census, 31.
 Horsey, R. E., Christmas Census, 16.
 Houghton, Clarence, Christmas Census, 15.
 Howland, Rennelson, Christmas Census, 23.
 Hubricht, Russel, Christmas Census, 34.
 Huey, L. M., Christmas Census, 45.
 Huntington, Elizabeth, Secretary, Report of, 491.
 Hurd, Frances Secretary, Report of, 460.
 Jackson, Robert L., Christmas Census, 35.
 Jacobs, R. W., Tree Swallows vs. Bluebirds, 123.
 James, Mrs. Irwin M., President, Report of, 488.
 Job, Herbert K., The Imperilled Heath Hen, 363; Annual Report, 463; photograph by, 464.
 Johnson, Edna L., see Kendall, Claribel.
 Johnson, J. M., Field Agent, Report of, 465.
 Johnston, I. H., Christmas Census, 27.
 Johnston, M. S., Christmas Census, 16.
 Jones, Caroline, Christmas Census, 10; Notes from Bennington, Vt., 189.
 Jones, Eleanor P., Secretary, Report of, 506.
 Jones, F. C., Christmas Census, 23.
 Jones, George T., Christmas Census, 33.
 Jones, Harold C., Christmas Census, 33; Oberlin Region, 133, 195, 261.
 Jones, Jesse L., Christmas Census, 25.
 Jones, Joseph P., Christmas Census, 27.
 Jones, Lynds, Christmas Census, 33.
 Jung, see Stoddard, H. L.
 Kendall, Claribel, and Edna L. Johnson, Christmas Census, 42.
 Kendeigh, S. Chas., Christmas Census, 33; Oberlin Region, 48, 325, 400.
 Kennard, H. F., Christmas Census, 12.
 Kimball, H. T., see Battles, C. D.
 Kimbrough, Felix, Christmas Census, 39.
 King, Mary, Christmas Census, 31.
 King, Mrs. E. R., and Mrs. H. M. Bailey, Christmas Census, 37.
 Kingman, Robert H., Christmas Census, 41.
 Kittredge, Joseph, Christmas Census, 26.
 Kuerzi, F. J., John, and Richard, Christmas Census, 18.
 Kuser, Cynthia D., Notes on Albino Robins, 188.
 Kuser, Dryden and Cynthia, Christmas Census, 28.
 Kyler, Mrs. J. F., Cedar Waxwing Visitors, 395.
 Lacey, Charlotte A., Secretary, Report of, 470.
 Lacey, Milton S., How the Killdeer Came to Southport, 232; Yellow-crowned Night Heron in Connecticut, 393.
 LaDow, Mr. and Mrs. Stanley V., Christmas Census, 22.
 Landreth, W. G., Cuckoo and Moth, 423.
 Lane, James W., Christmas Census, 20.
 Lano, Albert, Christmas Census, 39.
 Latham, Roy, Christmas Census, 10.
 Lear, George, Christmas Census, 25.
 Lee, Mary Spencer, see Hallett, George H.
 Leedy, C. A., Christmas Census, 34.
 Lemon, Frank E., The Royal Society for the Protection of Birds, 87.
 Leng, Charles W., Secretary, Report of, 509.
 Lewis, George Porter, Chicago Region, 49, 133, 196, 262, 326, 402.
 Lewis, Harrison F., and C. K. McLeod, Christmas Census, 8.
 Lewis, John B., Christmas Census, 27.
 Lewis, Merriam G., Christmas Census, 27.
 Linton, M. Albert, and Alfred C. Borton, Christmas Census, 21.
 Lithgow, Ramon, Christmas Census, 24.
 Lounsbury, Nell, Hard to Please, 150.
 Loveland, Lillian S., Cardinals and Cowbirds, 250.
 Loveland, Mrs. George A., Christmas Census, 41.
 Luban, W. C., photograph by, 296.
 Lyon, Wm. I., and George R., Christmas Census, 36.
 MacCoy, Clinton V., Secretary, Report of, 484.
 MacNamara, Charles, see Gormley, Liguori.
 Magee, M. J., Notes from Sault Ste. Marie, Mich., 121; The Savannah Sparrow, 186.
 Manning, Dr. Jacolyn, Corresponding Secretary, Report of, 499.
 Marburger, Clifford, Christmas Census, 24.
 Markham, Mrs. D. H., Christmas Census, 39.
 Marsh, Thompson G., Christmas Census, 42.
 Martin, Eleanor Hall, A Successful Bird-House and Winter Feeding Competition in Missouri, 217.
 Marx, David, Christmas Census, 33; A Good Day for Ducks, 151.
 Matern, E. H., photograph by, 157.
 Mathews, Frank and Robert, Christmas Census, 19.
 Matte, Jose, Secretary, Report of, 500.
 Mayfield, Mr. and Mrs. Geo. R., Christmas Census, 38.
 McAtee, W. L., Christmas Census, 26.
 McBride, C. J., Thrasher and Blacksnake, 126.
 McColm, G. E., photograph by, 384.
 McColm, Viola, An Arkansas Kingbird's Nest 347.
 McConnell, Harry B., Christmas Census, 31.
 McCracken, Vera, and Gertrude E. Dixon, Christmas Census, 37.
 McGinley, Muriel and Bernice Andrews, Christmas Census, 30.
 McGinnis, W. H., Christmas Census, 27.
 McLlwraith Ornithological Club, Christmas Census, 6.
 McKenny, Margaret, and John M., Christmas Census, 43.
 McKinney, Stanley, see Weinberger, Charles R.
 McKnight, Thor, Christmas Census, 43.
 McLeod, C. K., see Lewis, Harrison F.
 McMorran, Martha A., Secretary, Report of, 497.
 McNish, E. L., Christmas Census, 38.
 Mellott, Dr. S. W., Christmas Census, 26.
 Mells, Ruby E., Secretary-Treasurer, Report of, 489.
 Meloy, Alice K., The Starling, 247.
 Menke, Katharine R., Bird Life at Bird's Inn, 352.
 Merriman, R. Owen, Murder of Sparrow by Grackles, 319.
 Midkiff, Carl, A Parrot's Nest, 348.

- Miller, Abraham B., Christmas Census, 24.
 Miller, Ansell B., Christmas Census, 25.
 Miller, Elizabeth, Corresponding Secretary, Report of, 486.
 Miller, Mary Mann, Christmas Census, 44.
 Miller, W. deW., Christmas Census, 22.
 Mills, Wier R., Christmas Census, 37.
 Minich, E. C., Christmas Census, 34.
 Mitchell, Arthur B., Christmas Census, 11.
 Mix, Mrs. Arthur J., Christmas Census, 44.
 Monk, Harry C., Christmas Census, 38.
 Moore, Laura B., Christmas Census, 28.
 Morris, Lucy N., Secretary, Report of, 495.
 Morris, L. V., and J. T. Nichols, Christmas Census, 19.
 Morris, Miss L. N., Christmas Census, 23.
 Morris, Robert T., Unusual Nesting-Sites, 316.
 Morse, Etta M., The History of a Black-capped Chickadee Family, 187; A Summer with a Catbird Family, 251; A Yellow Warbler Incident, 251.
 Morton, Wm. Markham, Christmas Census, 30.
 Mounts, Eugene, Christmas Census, 20.
 Mousley, Henry, Christmas Census, 8.
 Munger, Edith C., President, Report of, 475.
 Munger, Edwin H., Christmas Census, 14.
 Murie, O. J., photograph by, 84.
 Murphy, Robert Cushman, see Harper, Francis.
- Nathan, Bernard, see Hix, George E.
 Nation, Harold T., Secretary, Report of, 497.
 Neff, Johnson and Gladys, Christmas Census, 39.
 Neil, Reba, Christmas Census, 24.
 Nice, Margaret M., Christmas Census, 41.
 Nichols, John T., Christmas Census, 20; see Morris, L. V.; New York Region, 47, 129, 190, 256, 322, 398; reviews by, 139, 204, 411; Bird-Lore's Twenty-fourth Christmas Census, 386.
 Nichols, L. N., see Friedman, R.
 Nichols, W. F., Christmas Census, 20.
 Nicholson, Nevin, Christmas Census, 23.
 Norton, Arthur H., Annual Report, 488; Field Agent's Report, 458.
 Norton, Carrie Morse, The Cardinal in South Dakota, 124; A South Dakota Cardinal, 187.
 Norton, Mrs. C. E., Secretary, Report of, 508.
 Nott, Ethel Allis, from a Bird-Lover's Notebook, 313.
 Novak, Frank, Christmas Census, 14.
- Oberholser, Harry C., Washington Region, 48, 131, 193, 258, 324, 400; The Migration of North American Birds, 119, 243, 388.
 Ottawa Field-Naturalists' Club, Christmas Census, 10.
- Pack, Arthur N., Secretary, Report of, 495.
 Pagan, Frank, photograph by, 242.
 Palas, A. J., and John Woodmansee, Christmas Census, 36.
 Palmer, T. S., Obituary of Justice Job Barnard, 156; review by, 336.
 Pangburn, Clifford, Christmas Census, 19.
 Patterson, Mrs. Castracane, Secretary, Report of, 488.
 Pearson, T. Gilbert, Herons of the United States, Part II, 70; Part III, 218; Part IV, 355; photographs by, 78, Needed, a Home for the Audubon Societies, 80; Bird-Banding as a Means of Bird-Study, 83; Evils That Lurk in the Bounty System, 152; Prizes for Posters and Essays, 158; Children Enrolled as Junior Members, 158; Federal Hunting License Bill Defeated, 158; The New Building Fund, 160; Protecting the
- Flamingoes, 222; Last Days of the Heath Hen, 223; Flamingo Protection in the Bahamas, 286; Connecticut Audubon Society's Twenty-fifth Anniversary, 288; Public Shooting Ground Game Refuge Bill, 289; The Oregon Audubon Society, 289; Topeka (Kansas) Audubon Society, 289; Dr. William W. Arnold: Obituary, 290; The Wood Thrush, 290; Memorial to W. H. Hudson, 359; Notice of Annual Meeting, 359; Save Some of the Marshes for Wild Life, 360; The Paris Convention, 360; The Florida Law Requiring Bird-Study in the Schools, 362; More Bird Sanctuaries, 363; Annual Meeting, 424; Roosevelt Bird Sanctuary, 425; 'Bird Sunday,' 426; Louisiana Gulf Coast Club, 425; Annual Report, 433.
 Perkins, Anne E., Christmas Census, 15.
 Perkins, Edward H., Christmas Census, 10.
 Perkins, Samuel E., III, Secretary, Report of, 473.
 Perley, Mrs. Ward B., An Ice-Bound Canvasback, 185.
 Pierce, Fred J., and Vance Allyn, Christmas Census, 37.
 Pierce, Fred J., A Trapped Woodpecker, 318; Electrocuting of a Kinglet, 396.
 Pierce, Lilian W., Secretary, Report of, 513.
 Pontius, Dale, Christmas Census, 32.
 Poole, Cecil A., Christmas Census, 44.
 Potter, Jessica, Christmas Census, 44.
 Potter, Julian K., Christmas Census, 20; Philadelphia Region, 47, 192, 257, 323, 399.
 Potter, L. H., Christmas Census, 11.
 Preble, E. A., Christmas Census, 26.
 Pratt, Helen S., Secretary, Report of, 468.
 Price, Ruth Mary, Christmas Census, 41.
 Proctor, Margaret, Three Little Song Sparrows, 68.
 Pumyea, Nelson deW., Christmas Census, 21.
 Purvis, Meredith and Walter, Christmas Census, 27.
- Raker, Mary E., Christmas Census, 44.
 Raker, W. S., Christmas Census, 44.
 Ratliff, June, A Bird Tragedy, 353.
 Ratterman, Katherine, Secretary, Report of, 479.
 Reid, Mrs. Bruce; Fanny, a Pet Hummer, 239.
 Rice, Ward J., Christmas Census, 35.
 Rich, Mrs. C. L., Christmas Census, 10.
 Richardson, F. L. W., Christmas Census, 12.
 Richardson, Russell and William, Christmas Census, 24.
 Rishel, J. B., Christmas Census, 26.
 Roads, Katie M., Christmas Census, 32.
 Roberts, George, An Illinois Yard, 392.
 Roberts, Merl, see Smith, O. W.
 Roberts, Thos. S., Minnesota Region, 50, 197, 263, 326, 402.
 Rogers, Charles H., Christmas Census, 22.
 Ronsheim, Milton, Christmas Census, 31.
 Roper, Mrs. William, and Maude Doolittle, Christmas Census, 12.
 Rosen, W. M., and Walter, Christmas Census, 37.
 Ross, L. S., and Mrs. Lucretius H., Christmas Census, 11.
 Ruegg, Nettie C., see Button, Lily Ruegg.
 Russell, John W., Christmas Census, 13.
 Russell, Lores, Alberta and Its Birds, 348.
 Russell, Marion M., Secretary and Treasurer, Report of, 514.
- Sadler, Nettie M., Christmas Census, 17.
 Sage, Mary S., Field Agent, Report of, 459.
 Salmon, Mrs. Mary, Catbird Notes, 319.
 Samson, Paul C., The Nest on the Rain-Pipe, 105.

- Saunders, Aretas S., Christmas Census, 14.
 Savage, James, and Thomas L. Bourne, Christmas Census, 15.
 Savage, L. F., Christmas Census, 24.
 Sawyer, E. J., The Proper Size of a Bird-House, 5.
 Schaefer, Oscar F., Christmas Census, 17.
 Schaeffer, O. V., Christmas Census, 35.
 Schafer, John J., Christmas Census, 36.
 Schantz, Orpheus M., President, Report of, 472.
 Schneider, Francis B., Christmas Census, 44;
 Los Angeles Region, 55, 137, 202, 269, 332, 408.
 Schroder, Hugo H., Christmas Census, 36; Fall
 Notes from Bettendorf, Iowa, 121; Notes from
 Fort Pierce, Florida, 122.
 Scott, Carroll DeWilton, Christmas Census, 45.
 Scoville, Gurdon T., and Henry H. Collins,
 Christmas Census, 23.
 Seibold, P. F., Christmas Census, 25.
 Self, Mrs. J. H., Secretary, Report of, 510.
 Shaver, Jesse L., Christmas Census, 38.
 Shaw, J. E. Norton, Christmas Census, 12.
 Shay, J. H., Christmas Census, 24.
 Sherman, Theda, 'It Pays to Advertise,' 353.
 Shirling, A. E., Christmas Census, 38.
 Shumway, F. Ritter, Christmas Census, 16.
 Sillick, F. Halsted, Christmas Census, 22.
 Sim, Robert J., The Common Loon, 167; photo-
 graph by, 364.
 Simonds, Susie L., Christmas Census, 30.
 Slack, Rosalie H., Cherry, 283.
 Smith, C. Edwin, Christmas Census, 25.
 Smith, Elizabeth A., Christmas Census, 41.
 Smith, George M., Christmas Census, 16.
 Smith, L. M., Christmas Census, 12.
 Smith, Lester W., Christmas Census, 14.
 Smith, Mrs. George O., Christmas Census, 41.
 Smith, Napier, see Terrill, L. McI.
 Smith, O. W., and Merl Roberts, Christmas
 Census, 30.
 Smith, Wendell P., Christmas Census, 11; A
 Bird Walk Near Falls River, 67; Experience of
 a Bird-Bander, 245.
 Smith, Wilbur F., photographs by, 4, 370, 393;
 Christmas Census, 15; First Finding of the
 Yellow-crowned Night Heron in Connecticut,
 393.
 Sogard, Mrs. Kate T., Corresponding Secretary,
 Report of, 500.
 Sour, Belden, Christmas Census, 33.
 Southerland, H. A., Christmas Census, 16.
 Southworth, Hamilton, Richardson's Owl at
 Groton, Mass., 123.
 Spaulding, Nina G., Christmas Census, 10.
 Steele, Paul H., Christmas Census, 29.
 Stevens, O. A., Secretary, Report of, 470.
 Stevenson, Carol, The Birds That Have Come to
 My Home, 422.
 Stoddard, H. L., and C. Jung, Christmas Census,
 31.
 Stone, Lucy B., Secretary, Report of, 487.
 Stoner, Dayton, and Fred L. Fitzpatrick, Christ-
 mas Census, 36.
 Storer, Tracy I., San Francisco Region, 136.
 Stout, Mrs. A. V., Visitors in Our Garden, 315.
 Stubbs, Francis E., and Henry Fox, Christmas
 Census, 28.
 Sutton, George Miksch, Christmas Census, 24;
 Pittsburgh Region, 132, 193, 260.
 Swope, Eugene, Christmas Census, 33; Field
 Agent's Report, 457.
 Taper, Thomas A., Ruffed Grouse, 247.
 Taylor, John W., President, Report of, 476.
 Taylor, Warner, Christmas Census, 30.
 Tech Bird Club, Christmas Census, 13.
 Terrill, L. McI., and Napier Smith, Christmas
 Census, 8.
 Terry, Alice Palmer, see Walker, Edith Frances.
 Terry, R. J., President, Report of, 502; Secretary-
 Treasurer's report, 477.
 Thomas, E. S., Christmas Census, 31.
 Thomas, John, Christmas Census, 31.
 Thompson, Roy, see Hix, George E.
 Thompson, William, Christmas Census, 23.
 Thowless, Herbert L., President, Report of, 498.
 Tilley, J. M., and M. F. Whelan, Christmas
 Census, 35.
 Tiplin, Elsie, Secretary, Report of, 484.
 Tippetts, Katherine B., President, Reports of,
 471, 502.
 Trautman, Milton, Christmas Census, 31.
 Treganza, Mrs. A. O., Secretary, Report of, 480.
 Turner, May, Chairman, Report of, 481.
 Tuttle, F. M., The Story of an Albino Robin, 114.
 Tyler, Mrs. Fred W., Christmas Census, 41.
 Tyler, Winsor M., Boston Region, 46, 129, 190,
 256, 322, 397.
 Urner, Charles A., Christmas Census, 21.
 Van Tyne, Josselyn and Claude, Christmas Cen-
 sus, 29.
 Vaughn, H. S., Christmas Census, 38.
 Vibert, C. W., Christmas Census, 15.
 Vickers, Ernest W., Christmas Census, 31.
 Vicos, Blanche, Christmas Census, 44.
 Von Ende, Herman, Christmas Census, 23.
 Wade, Mrs. A. B., Secretary, Report of, 486.
 Walbridge, Caroline C., Report of, 505.
 Walker, C. F., Christmas Census, 32.
 Walker, Edith Frances, and Alice Palmer Terry,
 Christmas Census, 12.
 Walker, Isabella, Secretary, Report of, 481.
 Warfield, Benjamin and Robert, Christmas
 Census, 23.
 Warner, Willis H., Christmas Census, 34.
 Warren, Edward R., Some Robins and Their
 Nests, 108.
 Weeks, LeRoy Titus, Who Builds the Nest? 254.
 Weeks, L. T., and W. F. Coultas, Christmas
 Census, 36.
 Weinberger, Charles R., and Stanley McKinney,
 Christmas Census, 19.
 Weisgerber, H. W., Christmas Census, 34.
 Welty, Emma J., Corresponding Secretary,
 Report of, 480.
 West Chester Bird Club, Christmas Census, 25.
 Westcott, Walter, A Narrow Escape, 422.
 Wetmore, A., Christmas Census, 26.
 Whelan, M. F., see Tilley, J. M.
 White, Grace L., Notes on the Starling, 248.
 Whiting, Carson, Christmas Census, 33.
 Whittaker, C. R., The Cardinal, 249.
 Wicks, Mrs. Judson L., Christmas Census, 31.
 Wilcox, Ida May, A Sandpiper Family, 245; Yel-
 low-headed Hummers, 319.
 Williams, Laidlaw, Christmas Census, 17.
 Williamson, William E., Christmas Census, 33.
 Wilson, Ada, Spring Visitors to a Pasadena
 Garden, 180.
 Wilson, Belle, Chimney Swifts, 246.
 Wilson, Dr. Frank N., photographs by, 2, 184,
 235, 255, 307, 354; The Northern Phalarope in
 Michigan, 184.
 Wilson, Gordon, Christmas Census, 38.
 Wilson, John M., see McKenny, Margaret.
 Wilson, Ralph R., An Unusual Experience, 124.

Wood, Frederick, Christmas Census, 32.
 Wood, Harold B., and Merrill, Christmas Census, 35.
 Wood, Harold B., The Speed of Flight in Birds, 121.
 Wood, Mrs. J. G., Christmas Census, 41.
 Woodmansee, John, see Palas, A. J.
 Worley, John, Christmas Census, 31.
 Worley, Leonard G., Christmas Census, 41.
 Wright, J. Howard, and J. M. Gleason, Christmas Census, 44.
 Wright, Mabel Osgood, Stories from Birdcraft Sanctuary: III, The Winter Patrol, 1; IV,

Ducks and Drakes, 176; V, Here and There Between Seasons, 367.
 Wyman, Mrs. Phelps, Christmas Census, 31.
 Wythe, Margaret W., San Francisco Region, 331.
 Yoder, Edward, President, Report of, 491.
 Yoder, Edward, and Paul Bender, Christmas Census, 41.
 Yoder, William H., and Henry Galde, Christmas Census, 24.
 Young, John P., Christmas Census, 16.
 Young, Ralph, Christmas Census, 27.

INDEX TO CONTENTS

Advisory Council, BIRD-LORE's, 6.
 Alabama, 40.
 Albinism, 188.
 American Ornithologists' Union, Annual Congress of the, 337, 387.
 Arkansas, 39.
 Arnold, Dr. William W., Obituary, 290.
 Audubon's Farm, 231.
 Audubon Societies, Annual Meeting of the National Association of, 424; Annual Report, 433; List of Affiliated Organizations, 436; Wardens and Reservations, 446, 447; Reports of Field Agents, 449; Reports of State Societies and Bird Clubs, 436; Treasurer's Report, 520.
 Auk, Razor-billed, 129.
 'Auk, The,' reviewed, 139, 204, 335, 411.
 Avocet, 54, 202, 203, 408.

Bahamas, Flamingo Protection in the, 286.
 Baldpate, 54, 55, 137, 193, 195, 196, 202.
 Barbour's 'The Birds of Cuba,' reviewed, 271.
 Barnard, Justice Job, Obituary, 156.
 Bent's 'Life Histories of North American Wild Fowl. Order Anseres,' reviewed, 271.
 Bird-banding, 46, 83, 245, 399.
 Bird Colonies, Guarding, 446.
 Birdcraft Sanctuary, 1, 176, 367.
 Bird-Houses, 5, 217; figured, 250, 511, 517.
 Bird Migration, 119, 243, 388.
 Bird-of-Paradise at Little Tobago Island, 295; diet of the, 299; method of flight of the, 297.
 Bird-Protection, 87, 222, 286.
 Bird Sanctuaries, 1, 176, 363, 367, 425.
 Bird-Study 83, 142, 155, 215, 282.
 Birds' Bath, figured, 311, 482, 503.
 Birds' Plumage, 128, 244.
 Bittern, 48; figured, 144, 195, 196; figured, facing 295; 358, American, 325; Cory's Least, figured, facing 295; 357; Least, 258; figured, facing 295, 356.
 Blackbird, 197; Brewer's, 198, 201; Red-winged, 49, 50, 121, 134, 135, 190, 195, 198, 201, 202; Rusty, 50, 195; Yellow-headed, 362.
 Bluebird, figured, with nest, 5; 47, 48, 50, 51, 131, 133, 134, 193, 195, 199; Mountain, 54, 55, 137, 138, 199, 203; Western, 53, 136, 137, 138, 332.
 Bobolink, figured, 212, 258.
 Bob-white, 51, 216, 331.
 Bounty, Bird, 152.
 Brant, Black, 137.
 Brooks' 'Quests of a Bird Lover,' noticed, 139.
 Bufflehead, 53, 131, 195, 196.
 Bulletin of the Audubon Society of Western Pennsylvania, reviewed, 272.
 Bulletin of the Essex County Ornithological Club, reviewed, 334.

Bunting, Painted, 122; Snow, 133.
 Bush-tit, 201.
 Buzzard, Turkey, see Vulture, Turkey.
 California, 44, 45, 53, 54, 136, 137, 201, 202, 268, 269, 331, 332, 407, 408, 408.
 Canada, 489, 497.
 Canvasback, 53, 137, 185, 191, 192, 193, 195, 202, 258; figured, 343.
 Cardinal, 116, 117, 124, 131, 133, 187, 193, 249, 250.
 'Cassinia,' reviewed, 410.
 Catbird, 47, 130, 132, 193, 251, 252, 256, 310.
 Census, BIRD-LORE's Twenty-third Christmas, 8; Twenty-fourth, 386.
 Chat, 269; Yellow-breasted, 259.
 Chickadee, 50, 121; Black-capped, 129, 187; California, 196, 201; Mountain, 52.
 Chisholm's 'Mateship with Birds,' reviewed, 334.
 Cleaves, Howard H., photograph of, 515.
 Colorado, 42, 52, 135, 199, 265, 329, 405, 468.
 'Condor, The,' reviewed, 336.
 Connecticut, 14, 15; Audubon Society of, 288; 460, 460, 491.
 Cooke's 'The Purpose of Bird Censuses and How to Take Them,' noticed, 204.
 Coot, 131, 195, 262; American, 137.
 Cormorant, 54; Brandt's, 54; Double-crested, 49, 122.
 Cowbird, 47, 132, 195, 250, 253, 266.
 Cramer, William G., photograph of, 432.
 Creeper, Brown, 46, 48, 129, 194, 258, 259.
 Crossbill, American, 121, 259; Red, 46, 47, 132, 192, 194, 198, 199, 258; White-winged, 121, 130, 131, 132, 191, 193, 194.
 Crow, 49; figured, 67, 124; 129, 133, 135, 195, 198; Northwestern, 201.
 Cuckoo, Black-billed, 256.
 Curlew, Long-billed, 54, 138, 398; Hudsonian, 202, 323.
 Davis, David D., photograph of, 361.
 Davis, Mrs. W. W., photograph of, 493.
 Delaware, 26.
 Dipper, 270.
 District of Columbia, 26, 470; The Bird Classes of the Audubon Society of the, II., reviewed, 204.
 Dixon's, 'The Common Hawks and Owls of California from the Standpoint of the Rancher,' reviewed, 204.
 Dove, Mourning, 49, 50, 121, 131, 133, 134, 137, 194, 195, 198.
 Dovekie, 129.
 Dowitcher, 202; Long-billed, 54, 138, 408.
 Duchess of Portland, photograph of the, 86.

- Duck, 196; Black, 49, 192, 193, 194, 195, 259; Greater Scaup, 193, 195, 259, 325; Lesser Scaup, 193, 195, 196, 259, 325; figured, 382, 384; Ring-necked, 53, 54, 191, 194, 195, 196; figured, 412; Ruddy, 53, 55, 137, 193, 194, 195; Scaup, 49, 51, 53, 54; figured, 65, 345; 137, 194; Wood, 192, 201; figured, 368, 465.
- Dutcher, William, Library of, 85.
- Eagle, Golden, 203.
- Egret, figured, facing 1; American, 70; figured, 71, 203; Snowy, 138, 203.
- 'El Hornero,' reviewed, 412.
- Eliot's 'Birds of the Pacific Coast,' reviewed, 272.
- Falcon, Peale's 407.
- Federal Hunting License Bill Defeated, 158.
- Feeding Birds, 217, 302, 308, 313, 420.
- Finch, California Purple, 55, 137; Cassin's Purple, 55, 135, 137, 200; House, 202; Purple, 50, 51, 134, 138; figured, 176, 192, 193, 194, 196, 197, 198, 259; figured, 414.
- Flamingo, nests of the, figured, 222; protection in the Bahamas, 286.
- Flicker, 50, 129, 198, 199, 202; figured, 364; Northern, 55, 195, 197; Northwestern, 52; Yellow-shafted, 134.
- Flight in Birds, The Speed of, 121, 189.
- Florida, 28, 29, 122; bird-study in, 362, 381, 471, 486, 502.
- Flycatcher, Alder, 256; Arkansas, 121; Ash-throated, 200; Crested, 256; Scissor-tailed, 121; Traill's, 263; Western, 201, 331; Yellow-bellied, 323.
- Forsyth, E. W., photograph of, 223.
- Gallinule, Florida, figured, with nest, 147.
- 'Game Laws for the Season 1923-24,' The, reviewed, 412.
- Gannet, 48.
- Georgia, 28, 506.
- Gnatcatcher, 253; Blue-gray, 258, 259.
- Godwit, Marbled, 138, 202, 203; Western, 54.
- Golden-eye, 49, 53, 131, 192, 196; figured, 341.
- Goldfinch, 47, 198; American, 48, 103; Green-backed, 53, 138, 331; Pale 330; Willow, 138.
- Goose, Blue, 49; Canada, 46, 48, 53, 195, 196, 199, 407; figured, 339; Hutchins', 53; Snow, 48, 52, 202; White-fronted, 52.
- Grackle, Bronzed, 49, 121, 133, 190, 195, 197; figured, 304, 325.
- Grebe, Eared, 55, 137, 202; Holboell's, 129; Horned, 46; figured, 64, 129, 132, 193, 196, 258; Pied-billed, 55, 147, 193, 195, 196; Western, 54, 55, 137, 138.
- Griscom's 'Birds of the New York City Region,' reviewed, 410.
- Grosbeak, Blue, 259; Evening, 46, 53, 121, 195, 198, 200, 372; figured, 373, 374; 398; Pine, 130, 133, 195, 198; Rose-breasted, 256, 260.
- Grouse, 318; Ruffed, 51; figured, 61, 237, 238.
- Guillemot, Black, 129.
- Gull, figured, 59; Bonaparte's, 47, 48, 49, 54, 130, 131, 193, 196, 202, 258, 259, 260, 323; California, colony of, figured, 453; Franklin's, 49; Glaucous, 129, 130; Glaucous-winged, 136, 137, 202; Heerman's, 54, 137; Herring, 122, 132, 134, 193, 196, 199, 202, 260; figured, 418, with nest, 423; Iceland, 120; Kumlien's 129; Laughing, 47, 122, 259; Ring-billed, 40, 137, 193, 259, 260, 261; figured, 418; Short-billed, 136; Western, 54.
- Hartley's 'The Importance of Bird Life. A Popular Account of Its Economic Significance and Conservation,' reviewed, 56.
- Hawk, American Rough-legged, 135; Broad-winged, 196; Cooper's, 51, 196; Desert Sparrow, 201; Ferruginous Rough-legged, 54, 135, 203; Fish, 259; Marsh, 132, 133, 190, 196, 199; figured, with nest and eggs, 305; young, figured, 306; Pigeon, 197; Red-shouldered, 196; Red-tailed, 51, 196, 198; Rough-legged, 51, 192, 196; Sharp-shinned, 52, 132, 136, 196, 260, 331; Sparrow, 51, 185; figured, 186, 309; 196, 198, 199; Swainson's, 121.
- Hell-diver, see Grebe, Pied-billed.
- Hen, Heath, 223; extinction of the, 363.
- Heron, Anthony's Green, 409; Black-crowned Night, 130; figured, facing 167; 194, 198, 220; figured, 221; 258; Great Blue, figured, facing 1; 55; figured, with nest, 73, 75, 76, 77, 380; nesting colony, figured, 78; 195, 196, 198, 199, 201; Great White, figured, facing 1; 74; Green, figured, facing 295; 328; Little Blue, 257; Little Green, 54, 355; Louisiana, figured, facing 167; 218; Würdemann's, figured, facing 1; 79; Yellow-crowned, figured, facing 167; 219, 393; figured, 394.
- Holt's 'Annotated List of the Avery Bird Collection in the Alabama Museum of Natural History,' reviewed, 272.
- Horsfield's 'Sidelights on Birds: An Introduction to the Study of Bird-Life,' reviewed, 204.
- Hudson, W. H., Memorial to, 359.
- Hummingbird, 46; Allen's, 201, 203; Anna's, 138; Costa's, 203; Ruby-throated, figured, 240, with nest, 242; Rufous, 201, 203.
- Hunting, Elizabeth, photograph of, 490.
- Ibis, Glossy 409.
- Illinois, 35, 36, 49, 133, 196, 262, 326, 392, 401, 472, 489.
- Indiana, 34, 473, 513.
- Iowa, 36, 37, 121, 216.
- Jackson's, 'Near Nature's Heart,' reviewed, 334.
- Jaeger, 409; Parastitic, 134.
- Jay, Blue, 52, 121, 134, 201, 394; Blue-fronted, 54; Florida, 122.
- Job, Herbert K., Summer Bird-Study with, 155; photograph of, 463.
- Junco, 46, 47, 50, 120, 130, 132, 135, 194, 198, 199; Gray-headed, 52, 200; Montana, 52; Shufeldt's, 200; Slate-colored, 133, 137, 193, 196, 398; Pink-sided, 52; Thurber's, 54, 137.
- Kansas, 41, 474, 491, 511; Bird Exhibit of Topeka Audubon Society, 511, 512.
- Kentucky, 38.
- Killdeer, 49, 55, 191, 194, 195, 196, 199, 200, 232, 260; figured, 276.
- Kingbird, Arkansas, figured, with nest, 247; 267, 330; Gray, 258; Western, 203.
- Kingfisher, figured, 307; Belted, 195.
- Kinglet, Golden-crowned, 46, 49, 54, 121, 129, 132, 133, 134, 136, 194, 197; Ruby-crowned, 46, 48, 130, 190, 196, 197, 199, 258, 259, 306; Sitka, 201; Western Ruby-crowned, 202.
- Laimbeer's 'Birds I Have Known,' reviewed, 410.
- Lark, Horned, 135, 137, 198, 199, 202; Prairie Horned, 121, 132, 194; figured with nest, 211; 260.
- Lighthouses, Saving Birds at, 91.
- Longspur, 135; McCown's, Nest Studies of, 95; figured, 96, 97, 99, 101, 103; nest and eggs, figured, 104.

- Loon, 54, 129; 167; figured, 168, 170, 172; with nest, 174; 195, 199, 258; nests of the, 316; Red-throated, 196, 258.
 Lord Avebury as Saint Francis, reproduction of cartoon of, 90.
 Louisiana Gulf Coast Club, 426.
- Magpie, 51, 198.
 Maine, 10, 458, 481, 487.
 Mallard, 51, 53, 55, 137; nest figured, 178; 193, 195, 196, 201.
 Manchester Bird Club, 183.
 Martin, Purple, 192, 196, 197, 199, 259, 325, 400; figured, 517.
 Maryland, 26.
 Massachusetts, 11, 12, 46, 123, 129, 190, 256, 474, 484.
 Meadowlark, 47, 49, 51, 52, 55, 121, 134, 195, 198, 200; figured, with nest, 208; Western, 137.
 Merganser, 192, 195; American, 53, 131, 193, 256; Hooded, 193, 194, 195, 203; Red-breasted, 195, 196, 260, 323.
 Merriman's 'Attracting Birds with Food and Water,' noticed, 412.
 Meyers' 'Western Birds,' reviewed, 56.
 Michigan, 29, 121, 184, 475, 481.
 Minnesota, 31, 50, 197, 263, 326, 402; Audubon Society of, 85, 476.
 Missouri, 38, 39, 51, 134, 217, 477, 502.
 Mockingbird, 51, 125, 134, 261, 262, 310, 396, 398; figured, 311; 325, 330.
 Murre, Brünnich's, 129.
- Nebraska, 41.
 Nelson's 'Annual Report of Chief of Bureau of Biological Survey,' reviewed, 56.
 New Hampshire, 10, 477.
 New Jersey, 20, 21, 22, 23, 478, 495.
 New York, 15, 16, 17, 18, 19, 20, 47, 129, 188, 190, 256, 322.
 Nighthawk, 121, 256, 330, 400, 406; Pacific, 407.
 North Carolina, Legislation in, 159, 504.
 North Dakota, 40, 479.
 Nutcracker, 54.
 Nuthatch, Red-bellied, 397; Red-breasted, 54, 121, 131, 137; Slender-billed, 52, 201; White-breasted, 197, 395.
- Ohio, 31, 32, 48, 133, 195, 261, 325, 400, 457, 479, 488.
 Oklahoma, 41.
 Old-Squaw, 131, 134, 196.
 Ontario, 8, 9, 10.
 Oregon, 44, 52, 135, 200, 267, 289, 331, 407, 480.
 Oriole, Arizona Hooded, 203, 243; Audubon's, figured, facing 367; 388, 389; Baltimore, 121, 256, 258; Bullock's, figured, facing 231; 243, 267; Nelson's Hooded, figured, facing 231; Orchard, figured, facing 95; 119, 128, 258, 260; Sennett's, 243; Scott's, figured, facing 367; 388, 389.
 Ouzel, Water, see Dipper.
 Oven-bird, 261.
 Owl, 133, 134; Great Gray, 121, 198; Great Horned, 49, 133, 201, 259, 263; Hawk, 51; Long-eared, 123; Richardson's, 123; Screech, 52; figured, 60; 133, 201; Short-eared, 48, 51; figured, 63; 134, 138, 196; Snowy, 47, 51, 198.
- Pack, Arthur Newton, photograph of, 496.
 Paris Convention, The, 360.
 Pelican Brown, 54; White, 137, 404.
 Pennsylvania, 23, 24, 25, 26, 47, 132, 192, 193, 257, 260, 323, 399, 481.
- Pewee, Wood, 48, 256.
 Phainopepla, 56, 137, 409.
 Phalarope, Northern, 404; figured, 84; in Michigan, 184; 329; Red, figured, 184; Wilson's, 326.
 Pheasant, 49, 327; figured, 370.
 Phoebe, 49, 190, 193, 194, 195, 197, 199; Black, 201; Say's, 55, 200.
 Pigeon, Band-tailed, 54, 55, 137, 138, 202, 268.
 Pintail, 53, 55, 137, 191, 192, 193, 194, 195, 196, 201, 202; figured, 342.
 Pipit, 54, 55, 135, 137, 202; American, 202.
 Plover, Black-bellied, 54, 138, 202; Golden, 409; Piping, 192, 201; Semipalmated, 49, 54, 138, 259, 262; Snowy, 54, 202; Upland, 195, 326.
 Prairie Chicken, 51.
 Preble and McAttee's 'Birds and Mammals of the Pribilof Islands, Alaska,' reviewed, 334.
- Quebec, 8.
 Quail, 201; California, 136, 331.
- Rail, King, 257; Sora, figured, 148; Virginia, figured, with nest, 146.
 Raven, 267.
 Redhead, 195, 203.
 Redpoll, 49, 130, 133.
 Redstart, 259, 261, 265.
 Redwing, Northwestern, 200.
 Rhode Island, 13, 125, 480.
 Roadrunner, 55, 136, 203.
 Robin, figured, 2; 47, 49, 54; figured, 195; 198, 110; nest figured, 110, 111; 112, 114, 127, 133, 134, 136, 190, 194, 195, 199; figured, with nest, 241, 417; Albino, 188; American, 193; Western, 137, 202.
 Roosevelt Bird Sanctuary, 425.
 Roosevelt Wild Life Bulletin, Nos. 3 and 4, reviewed, 271.
 Royal Society for the Protection of Birds, 87.
- Sanderling, 202; figured, 280.
 Sandpiper, Baird's, 399; Buff-breasted, 398; Curlew, 398; Least, 138, 202, 262, 266; Pectoral, 195, 196, 262; Red-backed, 49, 54, 202; Semipalmated, figured, 279; Solitary, 258, 260; Spotted, 195, 260, 262; figured, 277; Stilt, figured, 275; 404; Western, 138, 202; White-rumped, 258.
 Sapsucker, Red-breasted, 54, 55, 136; Red-naped, 54; Williamson's, 200; Yellow-bellied, 134, 196, 197, 199, 326.
 Scoter, 48; Surf, 48, 137, 202; figured, 317; White-winged, 48, 52, 54, 55, 137, 323.
 Scranton Bird Club Exhibit, photograph of, 159.
 Season, The, 46, 129, 190, 256, 322, 397.
 Sharpe, Sir Montagu, photograph of, 88.
 Shoveller, 131, 137, 192, 195, 196, 200, 202.
 Shrike, 129; Migrant, 194, 195, 197; figured, with nest and young, 235; Northern, 133, 308.
 Siskin, Pine, 46, 47, 48, 51, 55, 121, 129, 132, 133, 137, 138, 194, 198, 199, 200, 201, 202, 258, 259, 394.
 Skimmer, Black, 324.
 Snipe, Wilson's, 49, 132, 134, 193, 195, 196, 203, 260.
 Solitaire, Townsend's, 55, 203.
 South Dakota, 40, 124, 187.
 Sparrow, Bell's, 55; Chipping, 50, 54, 195; Field, 194, 195, 197; Fox, 49, 50, 55, 130, 134, 136, 137, 190, 194, 195, 197, 199, 201, 202, 203; Gambel's, 55; Golden-crowned, 53, 54, 138, 201; Grasshopper, 46, 195, 259; Harris', 49, 51, 134; Henslow's, 46; figured, with nest, 214; Intermediate, 201; Lark, 54, 55; Lincoln's, 196, 203;

- Nuttall's, 53, 201; Oregon Vesper, 201; Savannah, 50, 130, 186, 190, 196, 197, 201; figured, with nest, 210; Seaside, 48; Sharp-tailed, 48; Song, 47, 48, 49, 50, 51; young, figured, 68; 120, 132, 133, 134, 135, 190, 193, 194, 195, 197, 198, 199, 201; Swamp, 130, 131; figured, with nest, 140; Tree, 46, 47, 48, 50, 51, 120, 133, 134, 194, 198, 200, 256; Vesper, 48, 49, 130, 190, 191, 195, 197, 198, 199; figured, with nest, 200; 325; Western Lark, 137; White-crowned, 46, 51, 186, 201, 258, 259, 270; White-throated, 50, 51, 53, 55, 133, 136, 137, 198, 201.
- Starling, European, 131, 247, 248, 249.
- Surf-bird, 136.
- Swallow, Bank, 196, 260; Barn, 47, 196, 201, 203, 260; 404; Eave, 328; Rough-winged, 259, 324; Tree, figured, 123; 195, 199; Violet-Green, 201, 203, 266, 330.
- Swan, Whistling, 192.
- Swift, Chimney, 49, 246, 400; White-throated, 55, 138.
- Tanager, Scarlet, 319; Western, 267, 408.
- Tatler, Wandering, 400.
- Teal, Blue-winged, 49, 195, 196; Cinnamon, 202; Green-winged, 51, 53, 191, 195, 202, 256.
- Tennessee, 38.
- Tern, Black, 257, 259, 326; Caspian, 259, 261, 323; Common, 195, 259, 322; figured, 354; Forster's, 202, 398; Least, 324; Roseate, 323; Royal, 138.
- Thrasher, 47, 53; Brown, 126, 127, 133, 198, 258.
- Thrush, Alaska Hermit, 407; Dwarf Hermit, 202; Gray-cheeked, 258, 259; Hermit, 46, 47, 48, 54, 55, 130, 136, 138, 190, 191, 195, 197, 199; Olive-backed, 258, 263; Russet-backed, 270; Varied, 54, 55, 135, 136, 137, 138, 202; Wilson's, 258, 400; Wood, 200, 320.
- Titmouse, Tufted, 130, 133, 193, 198.
- Topeka Audubon Society, 289.
- Towhee, 47, 49, 53, 132, 133, 194, 195, 197; figured, 255; Green-tailed, 409.
- Tree-duck, Fulvous, 202.
- Turnstone, 258; Black, 135, 408; Ruddy, 408.
- Veery, 258.
- Vermont, 10, 11, 180.
- Vireo, Blue-headed, 191; Hutton's, 201; Least, 203; Philadelphia, 256, 260; Plumbeous, 406; Warbling, 196, 201, 203; White-eyed, 256; Yellow-throated, 257, 259, 260.
- Virginia, 27.
- Vulture Turkey, 138, 195.
- Warbler, Audubon's, 53, 54, 135, 136, 137, 138, 201, 407; Bay-breasted, 258, 259, 261; Black and White, 261; Blackburnian, 259, 261; Black-poll, 48, 256, 261, 307; Black-throated Blue, 258, 261; Black-throated Gray, 203, 267; Black-throated Green, 258, 260, 261; Blue-winged, 46, 260; Brewster's, 257, 323; Canadian, 256, 261; Calaveras, 409; Cape May, 49, 259, 260, 261; Chestnut-sided, 256, 258, 261; Dusky, 54, 55; Golden-winged, 259, 260, 323; Hooded, 122, 258; Kirtland's, 122; Lawrence's, 257, 323; Lutescent, 201, 203, 407; Macgillivray's, 267; Magnolia, 49, 50, 259, 261; Mourning, 260, 322; Myrtle, 49, 133, 197, 201, 259, 261, 398; Nashville, 261; Orange-crowned, 260; Pileolated, 201, 203; Pine, 191, 259; Prothonotary, 257; Tennessee, 259, 261, 323; Townsend's, 136, 202, 407; Wilson's, 256, 258; Yellow, 261, 407; Yellow Palm, 48, 258, 259; Yellow-throated, 258.
- Washington, 48, 131, 193, 258, 324, 400.
- Washington Territory, 43, 390.
- Water-Thrush, Louisiana, 194, 196; Northern, 258.
- Waxwing, Bohemian, 125, 188, 197, 198, 199, 200; Cedar, 54, 130, 136, 137, 192, 193, 198, 202, 395; Northern, 195.
- West Virginia, 27, 28, 515.
- Whip-poor-will, figured, 419.
- Widgeon, 53; European, 137; American, 191.
- Widmann, Otto 'Extracts from the Diary of,' reviewed, 139.
- Willet, 54, 138, 323; Western, 202; figured, 281.
- 'Wilson Bulletin, The,' reviewed, 56.
- Wisconsin, 30, 500.
- Woodcock, 195, 196.
- Woodpecker, Arctic Three-toed, 121, 133; Canaan's, 138; California, 55; Downy, 133; Gairdner's, 201; Hair, 133, 134, 135; Lewis', 52, 54, 55, 135; Nuttall's, 203; Pileated, 121; Red-bellied, 132, 134, 194; Red-headed, 52, 121, 134, 135, 197, 198.
- Wren, Bewick's, 262; Carolina, 192, 193, 194, 196, 260; Dotted Canon, 55; House, 201, 258; 406; Long-billed Marsh, 49; figured, 145, with nest, 145; 258; Rock, 330; San Diego, 138; Short-billed Marsh, 258; Winter, 132, 194, 262.
- Wren-Tit, 201.
- Yellow-legs, 202, 203, 260; figured, 278; 326; Greater, 48, 192, 193; Lesser, 199.
- Yellow-throat, Northern, 261; Pacific, 201.



1. EGRET.

2. GREAT WHITE HERON.

3. WÜRDEMANN'S HERON.

4. GREAT BLUE HERON.

Bird-Lore

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No. 1

Stories from Birdcraft Sanctuary

By MABEL OSGOOD WRIGHT

III. THE WINTER PATROL

WITH the final passing of the throngs of migrant birds in late October and November, a fresh page is turned in the record book of Birdcraft Sanctuary—a page with room and to spare and yet not one whit less interesting than the crowded leaves preceding—a page wherein is written much that again proves that protection is an all-the-year matter, not merely that of the season of nesting and song.

With the first sleet storm what we call the 'Winter Patrol', of the warden begins. Most of the food shelters and trays where food is placed are either well screened or about the Bungalow where, if the ice has covered the food, a second sprinkling can be added, but there are other things that can be ice-bound besides food. Soft snow has little terror, even for the ground-sleeping birds, like Quail, Grouse, and Pheasant, rather is it a blanket; but the sleet storm is a different matter. Such a storm came upon us the middle of Christmas week. As soon as it was light the warden made his rounds, looking carefully into every tangle and groups of wild shrubbery.

In a shelter of wild rose bushes so thick that the light snow that preceded the ice was still soft and fluffy, a covey of Quail had slept safely, the impress in the snow showing the circular formation of their bedding-down, bodies in, heads out. A few paces further on there could be seen a covey of fourteen feeding in an open space by the pond where corn, both whole and cracked, is kept for the ducks—Mallards that come avisting and a pair of pinioned Wood Ducks that are contented permanent residents, having an apartment of *parlor and bedroom* on the island, the *bath* being a place kept open in the ice over a spring-hole. Speaking of these Wood Ducks, their presence, and those of their clan who have visited them, has made a new record of late staying for the birds in this state.

All the season, Wood Ducks in twos and threes have visited the little pond to share its protected seclusion and food, some making long visits and some

leaving in the day but returning nightly. The last pair remained until *December 7*, between sunset and sunrise the next morning. *December 3* is the latest state record to which we have access.

After watching the Quail, the warden kept on in one of the heavily brushed trails. Something moved slightly. Then, as he drew nearer, there was a visible shaking of the brush, which, by the way, is on a hill and facing south, a favorite shelter for game birds. Brushing the ice from a heavily laden bush,



A WINTER ROBIN

Photographed by Dr. Frank N. Wilson, at Ann Arbor, Mich.

one of our fine cock Pheasants was seen to be anchored firmly to the ground by his tail that was a solid ice plume—to this poor bird surely a nearly fatal gift of beauty.

It was quite difficult to free the tail, even partially, without pulling out the quills, so when the warden brought the Pheasant over to my house, that I might see for myself the loss of life that there must be in our climate to birds of this type, the ice still clinging to the feathers must have been more than a pound's weight, and it required a bath in the kitchen sink to complete the bird's freedom.

The freezing in of Quail and Grouse is a perpetual menace, and the patrol keeps a keen watch for them. The great covey of nearly 50 Quail that have been more or less with us all the past years, seem to be breaking into smaller

flocks, and other folk on the nearby lands are joining our warden in keeping up the 'Winter Patrol.'

That intense cold, aside from hunger or lack of shelter, kills even the hardiest birds, was shown us by the finding, at twilight one December evening, when the mercury had been hovering between zero and ten above for several days, of an Acadian Owl. He lay under one of the shelters where he had evidently fallen from his perch and was hunched on the ground, numb and almost dead from a combination of cold and starvation, ice probably having kept him from hunting.

The warden carefully brought him to life and fed him some bits of meat. The Owl ate ravenously, and was then put in an old cage in a warm, large cellar, to wait further developments.

For a week he was fed daily, then one morning he was found to have worked himself out of the cage and was nowhere to be seen. A few nights later a movement in a pile of wood led to the discovery that this least of our Owls, and a strictly night hunter, was living in and about the wood-pile, earning his food by catching mice with which the cellar was overrun. In the daytime he kept well hidden, but by March, when it was thought safe to open a window and let him go, the cellar was mouse-free—all a result of the 'Winter Patrol' plus a tiny Owl.

Any day we may find some hard and fast man-made law of bird-life and movement either disproved or modified by the happening in this place of only ten acres. We have several records of the wintering of insect-eating, summer residents, like the Catbird and Brown Thrasher, and a well witnessed record that a, so-called, Hen Hawk and hens can live in amity.

It was during the bitter weather of February, 1920, that a Red-shouldered Hawk took up its roost in the Sanctuary, and, of course, was under suspicion in spite of the good things that are said in its favor. The bird seemed desperately hungry, but the warden, in his patrol, always found that when the Hawk swooped and was seen feeding, the traces proved that it was a rodent and not a bird that was eaten.

The skull and adhering flesh of a deer's head, that had been mounted, promising good food for the warden's poultry, had been boiled and placed in the pen. That night the cold was bitter and the meat froze solid. The poultry, being well fed, did not disturb it, but the Red-shouldered Hawk, scenting a meal, came into the enclosure and plucked and tore some flesh from the skull.

The first day the chickens were frightened. The warden did not disturb the Hawk but kept close watch. In a few days this fear passed, for the Hawk attended strictly to business, and within a week Hawk and poultry were living in amity, or rather indifference, the former's presence simply arousing idle curiosity, not fear, among even the most cautious old hens.

Until March brought open weather, the Hawk continued to feed in the poultry-yard and then disappeared before the mating season.

So I say to all who care for birds plus adventures, take part in the 'Winter Patrol.' You will see many things in the sky as well as on the ground. Last night a troop of perhaps 250 Herring Gulls took a short cut above the Sanctuary from Fairfield Beach to their bedding-down place off Norwalk and seven Black-crowned Night Herons went from the pond to their roost in the spruces over at Mosswood, where their all-winter state record was first established. Beside the zest of discoveries, you will have a jolly good time in the going and the clear-eyed winter vision, warmed by winter sunshin color—keyed by winter sunsets and purified by winter moonlight, by which you may see elfin foot-prints on the snow.



WILD BIRDS FEEDING IN "BIRDCRAFT SANCTUARY," FAIRFIELD CONN
Photographed by Wilbur F. Smith



SKETCH OF BLUEBIRD ON ITS NEST, TO SHOW RELATIVE SIZE OF BIRD TO NEST-CAVITY

The Proper Size of a Bird-House

By E. J. SAWYER, Syracuse, N. Y.

NEARLY all the bird-houses and bird-boxes seen *in situ* by the writer, more particularly the 'home-made' articles, have been larger than necessary; the majority of them, much too large. Somewhere I have seen the printed statement that the nesting chamber of the bird-house should be at least as wide as the length of the proposed tenant. No doubt that is the idea which very commonly governs the size of home-made bird-houses. The notion is a mistaken one. Incidentally, this case well illustrates how altogether plausible a theory may be and yet widely at variance with the facts in the case.

The accompanying diagram of a Bluebird on its nest in a hollow fence-post shows the typical relation of sitting birds to such a nesting-site. Although the House Wren may fill a wide cavity with his bulky nest, still the nest proper is relatively very narrow. When the cavity selected by a House Wren is only a scant 3 inches wide, as is often the case, little material except the soft lining may be employed. Many times I have found nests of both Bluebirds and Tree Swallows in cavities uniform in width down to the very rim of the nest the chambers being barely of sufficient width to admit my hand,—that is to say, 3 inches in diameter.

Bird-Lore's Advisory Council

WITH some slight alterations, we reprint below the names and addresses of the ornithologists forming BIRD-LORE'S 'Advisory Council.'

To those of our readers who are not familiar with the objects of the Council, we may state that it was formed for the purpose of placing students in direct communication with an authority on the bird-life of the region in which they live, to whom they might appeal for information and advice in the many difficulties which beset the isolated worker.

The success of the plan during the twenty-three years that it has been in operation fully equals our expectations. From both students and members of the Council we have had very gratifying assurances of the happy results attending our efforts to bring the specialist in touch with those who appreciate the opportunity to avail themselves of his wider experience.

It is requested that all letters of inquiry to members of the Council be accompanied by a stamped and addressed envelope for use in replying.

NAMES AND ADDRESSES OF MEMBERS OF THE ADVISORY COUNCIL

UNITED STATES AND TERRITORIES

- ALASKA.—Dr. C. Hart Merriam, 1919 16th St., N. W., Washington, D. C.
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CALIFORNIA.—Walter K. Fisher, Palo Alto, Calif.
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MAINE.—A. H. Norton, Society of Natural History, Portland, Maine.
MASSACHUSETTS.—Winsor M. Tyler, Lexington, Mass.
MICHIGAN.—Prof. W. B. Barrows, Agricultural College, Mich.
MINNESOTA.—Dr. T. S. Roberts, Millard Hall, University of Minn., Minneapolis, Minn.
MISSOURI.—O. Widmann, 5105 Morgan St., St. Louis, Mo.
MONTANA.—Prof. J. M. Elrod, University of Montana, Missoula, Mont.

- NEBRASKA.—Dr. R. H. Walcott, University of Nebraska, Lincoln, Neb.
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 NEW JERSEY, Northern.—Frank M. Chapman, Am. Mus. Nat. History, New York City.
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 NEW YORK, Western.—E. H. Eaton, Hobart College, Geneva, N. Y.
 NORTH DAKOTA.—Prof. O. G. Libby, University, N. D.
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 ONTARIO, Eastern.—James H. Fleming, 267 Rusholme Road, Toronto, Ont.
 ONTARIO, Western.—W. E. Saunders, London, Ont.
 QUEBEC.—W. H. Mousley, Hatley, Quebec.

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- E. W. Nelson, Biological Survey, Dept. of Agr., Washington, D. C.

GREAT BRITAIN

- Clinton G. Abbott, 4290 Sierra Vista, San Diego, Calif.
 Frank M. Chapman, Am. Mus. Nat. Hist., New York City.

Bird-Lore's Twenty-third Christmas Census

Edited by J. T. NICHOLS

THE highest number of species recorded in this census in Canada, is 33 at London, Ont., a combined list by eight parties working independently. In the Northern and Middle Atlantic States, Orient, Long Island, leads with 45 (one observer); comparable, in the northern Mississippi Valley with 36 at Youngstown, Ohio (or a combined total of 37 by the Wheaton Club, Columbus, Ohio). Nashville, Tennessee has 54; Barachias, Alabama, 53 (one observer); San Diego, Calif., leads on the Pacific Coast with 112.

Abundance of the Pine Siskin in Quebec and Ontario, and its frequency to the Virginias, Ohio, Michigan and Wisconsin is notable. In 94 lists from New England and Middle Atlantic States it is mentioned in 35 (that is well over $\frac{1}{3}$) with a total of some 1,000 individuals; whereas in 83 such lists for the previous year it occurred in only 5 (less than $\frac{1}{16}$) with a total of only 100. Stragglers of several species are met with north of their normal winter range, particularly the Towhee; Ontario, once (2 individuals); Massachusetts, twice (2); Connecticut, once (1); Southern N. Y., three times (7); New Jersey, twice (7); Pennsylvania, once (4); Ohio, four times (12); Indiana, twice (4).

This year over 40 reports were received too late for publication. Some were mailed too late, others were wrongly addressed. There were doubtless a number, however, delayed by some unavoidable contingency, and to the authors of these, especially, we express our regret.

Aylmer, Que. (Vicinity of Queen's Park, Aylmer, and Deschenes; three to nine miles southwest of Ottawa, Ont.)—Dec. 26; 9.40 A.M. to 3.30 P.M. Mostly cloudy; 3 in. snow; wind south, light; temp. 38° at start, 40° at return. Three miles by electric railway, eleven miles on foot. Observers together. Downy Woodpecker, 2; Blue Jay, 2; Crow, 3; Purple Finch, 16; American Crossbill, 30; Pine Siskin, 458; Snow Bunting, 1; Brown Creeper, 2; White-breasted Nuthatch, 1; Red-breasted Nuthatch, 13; Chickadee, 18. Total, 11 species, 546 individuals.—HARRISON F. LEWIS and C. K. McLEOD.

Hatley, Stanstead County, Que.—Dec. 23; 8 A.M. to 5 P.M. Fine; 8 inches of snow; wind west, light; temp. 18° at start, 23° at finish. Thirteen miles on foot. Canada Ruffed Grouse, 7; Hairy Woodpecker, 1; Downy Woodpecker, 1; Pileated Woodpecker, 1; Blue Jay, 2; Crow, 3; Red Crossbill, 25; White-winged Crossbill, 100; Goldfinch, 6; Pine Siskin, 250; Northern Shrike, 1; White-breasted Nuthatch, 4; Red-breasted Nuthatch, 1; Chickadee, 20; Golden-crowned Kinglet, 2. Total, 15 species, 424 individuals.—HENRY MOUSLEY.

St. Adele (Laurentian Hills) Que.—Dec. 24; 10 A.M. to 3.15 P.M. partly clear; 1 ft. of snow; wind southwest (negligible); temp. even, about 25°. Observations limited to a square mile of wooded ravine and hillside (mixed growth). Canada Ruffed Grouse, 15; Hairy Woodpecker, 4; Downy Woodpecker, 3; Arctic Three-toed Woodpecker, 1; Blue Jay, 3; Pine Grosbeak, 1; Purple Finch, 2 (partial song); White-winged Crossbill, 200 (rough estimate); Redpoll, 75; Pine Siskin, 30; Red-breasted Nuthatch, 50; Black-capped Chickadee, 20. Total, 12 species, 404 individuals. White-winged Crossbills most in evidence and almost always in sight. L. McI. TERRILL and NAPIER SMITH.

Arnprior, Ont.—Dec. 24; 9 A.M. to 5 P.M. Cloudy; 5 in. snow; wind east, very light; few flakes of snow in morning; temp. 24° at start, 32° at return. Twenty miles on foot. Observers separate. Canada Ruffed Grouse, 8; Hairy Woodpecker, 5; Downy Woodpecker, 10; Northern

Pileated Woodpecker, 2; Blue Jay, 10; Purple Finch, 40; White-winged Crossbill, 230+; Redpoll, 22; Pine Siskin, 59; Song Sparrow, 2; Brown Creeper, 5; White-breasted Nuthatch, 18; Red-breasted Nuthatch, 10; Black-capped Chickadee, 51. Total, 14 species, 490+ individuals. Seen recently: Dec. 19, Bronzed Grackle, 1; Dec. 20, Screech Owl, 1; Dec. 21, American Crow, 2.—LIGUORI GORMLEY and CHARLES MACNAMARA.

Crumlin and Dorchester (Middlesex County) Ont.—Dec. 25. 7.30 A.M. to 5.30 P.M. Wind southerly, light; overcast early in forenoon, sunshine P.M.; Temp. 34° to 40°. Golden-eye, 200; other Ducks, 2; Great Blue Heron, 1; Ruffed Grouse, 1; Mourning Dove, 2; Cooper's Hawk, 1; Belted Kingfisher, 2; Hairy Woodpecker, 5; Downy Woodpecker, 7; Blue Jay, 7; Crow, 200+; Purple Finch, 12; American Crossbill (?) heard; Redpoll, 60; Goldfinch, 2; Pine Finch, 36; Snow Bunting, 16; Tree Sparrow, 35; Junco, 14; Song Sparrow, 2; Brown Creeper, 3; White-breasted Nuthatch, 7; Chickadee, 28; Golden-crowned Kinglet, 7. Total, 23 species, about 453 individuals. Also seen within a month: Herring Gull, Screech Owl, Marsh Hawk and Prairie Horned Lark (large flock).—E. W. CALVERT

Bowmanville, Ont.—Dec. 24; 11.45 A.M. to 4.15 P.M. Cloudy; 2 in. snow; no wind; temp. 36° to 40°. Nine miles on foot. Observers separate. Great Black-backed Gull, 2; Herring Gull, 50; American Merganser, 25; American Golden-eye, 12; Bufflehead, 2; Ruffed Grouse, 2; Hairy Woodpecker, 1; Downy Woodpecker, 10; Blue Jay, 2; Crow, 20; Meadow-lark, 18; Purple Finch, 20; Goldfinch, 6; Pine Siskin, 65; Tree Sparrow, 1; Junco, 8; Brown Creeper, 3; Chickadee, 20; Robin, 1. Total, 19 species, about 268 individuals. Seen recently: Redpoll, Flicker, Cooper's Hawk.—M. G. GOULD and A. ALLIN.

Hamilton, Ont.—Dec. 26; 9 A.M. to 1 P.M. Sky overcast; light covering of snow on ground; no wind; 42° at start, 43° at return. Fifteen miles on foot. Five parties working in different directions, along mountain brow, under mountain brow, around marsh. Herring Gull, 268; Ducks, 2; Hairy Woodpecker, 6; Downy Woodpecker, 23; Flicker, 1; Blue Jay, 13; Crow, 21; Purple Finch, 20; Red Crossbill, 7 (seen in flock); Redpolls, 4; Goldfinch, 46; Pine Siskin, 87; Snow-Bunting, 2; Tree Sparrows, 119; Junco, 78; Cedar Waxwing, 12; Brown Creeper, 9; White-breasted Nuthatch, 13; Black-capped Chickadee, 26; Golden-crowned Kinglet, 28; Ruby-crowned Kinglet, 3(?); Robin, 2. Total, 22 species, 790 individuals.—MISSSES BAUER, JAMES, JOHNSON, MILLS, SMITH, MRS. F. E. MACLOUGHLIN, MRS. C. D. COOK, C. D. COOK, and T. McILLWRAITH (Hamilton Bird Protection Society, Inc.)

London, Ont., vicinity of. Dec. 23. Sky overcast in the morning, clear and bright in the afternoon. Ground snow covered. No wind. Temp. 9 A.M. 34°; 2 P.M. 44°, 5 P.M. 32°. Combined list of eight parties working, some in the morning and some in the afternoon. American Golden-eye, 4; Ruffed Grouse, 1; Red-tailed Hawk, 3; Red-shouldered Hawk, 1; Long-eared Owl, 1; Screech Owl, 1; Great-horned Owl, 2; Snowy Owl, 1; Kingfisher, 1; Hairy Woodpecker, 8; Downy Woodpecker, 22; Red-headed Woodpecker, 8; Red-bellied Woodpecker, 2; Flicker, 2; Blue Jay, 20; Crow, 48; Meadowlark, 7 (flock feeding in the road); Bronze Grackle, 1; Purple Finch, 33; American Crossbill, 2; Goldfinch, 4; Pine Siskin, 101 (here in good numbers since fall); Tree Sparrow, 37; Junco, 107; Song Sparrow, 6; Chewink, 2 (both males, were calling when we found them first on December 3); Cardinal, 4; Mockingbird, 1 (has been here for a month living in the garden of Mr. McKone, feeding principally on the berries of *Ampelopsis Engelmanni*); Winter Wren, 1 (Mr. Calvert found this in a little ravine where he followed it for some time while it dodged in and out amongst the tree roots and bobbed up and down in characteristic manner); Brown Creeper, 4; White-breasted Nuthatch, 28; Black-capped Chickadee, 58; Golden-crowned Kinglet, 21. Total, 33 species, 542 individuals. Others seen recently: Bob-white, American Merganser. One observer stated that if he could have visited his usual hunting-ground he was fairly certain he could have added Short-eared Owl, Prairie Horned Lark, Snow Bunting, Red-breasted Nuthatch, and Robin.—J. F. CALVERT, MR. and MRS. E. M. S. DALE, R. HEDLEY, J. C. HIGGINS, G. T. E. MARTIN, MR. and MRS. E. H. MCKONE, J. R. McLEOD, T. D. PATTERSON, W. E. SAUNDERS, C. G. WATSON, A. WOOD (McIlwraith Ornithological Club).

Ottawa, Ont.—Dec. 24. Six separate parties. First party, 8 A.M. to 2.30 P.M., Dominion Observatory to Black Rapids and return, 15 miles; second party, 9.20 A.M. to 3.35 P.M., from Billing's Bridge 6 miles south on Metcalfe Road and return, 14 miles; third party, 9.45 A.M. to 5 P.M., Kirk's Ferry, Que., to Hull, Que., west of Gatineau River, 12 miles; fourth party, 10.30 A.M. to 4.30 P.M., Rockcliffe and east along Ottawa River to Duck Island and return, 13 miles; fifth party, 9.30 A.M. to 1.30 P.M., east on Montreal Road 7 miles and return, 14 miles; sixth party, 10.15 A.M. to 4.30 P.M., Hull, Que., Rivermeade, north toward King's Mountain and east to Fairy Lake, 10 miles. All on foot. Cloudy; 5 in. snow; very gentle wind, north in morning, shifting southwest in afternoon. Temp. +23.5° at 8 A.M., +27° at 5.30 P.M. Ruffed Grouse, 9; Hawk Owl, 1; Hairy Woodpecker, 7; Downy Woodpecker, 8; Blue Jay, 26; Crow, 120; Purple Finch, 20; Redpoll, 19; Pine Siskin, 894; Snow Bunting, 2; White-throated Sparrow, 2; Tree Sparrow, 6; Northern Shrike, 2; Brown Creeper, 2; White-breasted Nuthatch, 15; Red-breasted Nuthatch, 4; Chickadee, 31; Robin, 1. Total, 18 species, 1,169 individuals.—R. M. ANDERSON, D. BLAKELY, RALPH E. DELURY, DANIEL B. DELURY, PHILIP F. FORAN, FRANK HENNESSEY, C. B. HUTCHINGS, CLAUDE E. JOHNSON, HOYES LLOYD, C. L. PATCH, H. I. SMITH. (Ottawa Field-Naturalists' Club).

Bucksport, Maine (along river and woods north of town).—Dec. 25; 9.30 to 11.30 A.M. and 1.30 to 4 P.M. Overcast; 1-ft. snow; no wind; temp. 22° at start, 26° at return. Fourteen miles on foot. Herring Gull, 18; Ducks, sp? 5; Ruffed Grouse, 1; Downy Woodpecker, 1; Blue Jay, 1; Crow, 7; Redpoll (?), 60; White-breasted Nuthatch, 2; Chickadee, 2. Total, 9 species, 99 individuals.—GEORGE L. BLODGET.

Waterville, Maine.—Dec. 23; 9 A.M. to 4.30 P.M. Clear; about 2 feet of snow on ground; wind northwest, light; temp. lowest 24°, highest 36°. Hairy Woodpecker, 1; Downy Woodpecker, 1; Northern Pileated Woodpecker, 1; Blue Jay, 1; Crow, 3; Redpoll, 60; Snow Bunting, 4; Tree Sparrow, 15; Brown Creeper, 1; Chickadee, 21. Total, 10 species, 108 individuals.—EDWARD H. PERKINS.

Goffstown, N. H. (country north and south of village).—Dec. 24; 8.15 A.M. to 5 P.M. Cloudy; 9-in. snow on ground; wind south, light; temp. 34° at start, 38° at return. Nine miles on foot. Ruffed Grouse, 4; Ring-necked Pheasant, 2; Hairy Woodpecker, 4; Downy Woodpecker, 1; Blue Jay, 5; Crow, 1; Starling, 14; American Goldfinch, 3; Tree Sparrow, 2; Chickadee, 6; Golden-crowned Kinglet, 6; Robin, 1. Total, 12 species, about 49 individuals.—MAURICE E. BLAISDELL.

Jaffrey, N. H.—Dec. 24; 11 A.M. to 2.30 P.M. and 3.15 to 4.30 P.M. Cloudy; 6 in. of snow; no wind; temp. 40° at start, 36° at return. Five miles on foot. Observers separate. Ruffed Grouse, 1; Hairy Woodpecker, 1; Downy Woodpecker, 2; Blue Jay, 10; Redpoll, 3 flocks, 10, 25, 54; Tree Sparrow, 7; Junco, 1; Chickadee, 7; Golden-crowned Kinglet, 6. Total 9 species, 124 individuals.—NINA G. SPAULDING, MRS. C. L. RICH, and LUCIA B. CUTTER.

Strafford, N. H. (southwestern part of town).—Dec. 25; 9 A.M. to 12 M. Overcast; 10-in. snow; light west wind; temp. 32° Five miles on foot. Ruffed Grouse, 4; Blue Jay, 4; Crow, 2; Redpoll, 4; Chickadee, 2; Golden-crowned Kinglet, 6; Robin, 2; Total, 7 species, 24 individuals. (Within the past week, a large flock of Snow Buntings, over 50. Dec. 24, Redpolls 25 to 30; Hairy Woodpecker, 1; Downy Woodpecker, 1; Starling, 2, first I have seen in this town).—GEORGE C. ATWELL.

Bennington, Vt. (Carolhurst Bird Sanctuary).—Dec. 23; 9.30 to 11.40 A.M. and 2 to 4.15 P.M. Cloudy; 6 to 8 in. of snow, drifted; light snowfall in P.M.; wind west, changing to south later on; temp. 32° at start, 34° at return, 38° at noon. About 7 miles on snowshoes, with Airedale terrier. Ruffed Grouse, 16; Ring-necked Pheasant (fresh tracks of), 3; Hairy Woodpecker, 2 (heard); Downy Woodpecker, 1; Blue Jay, 2; Crow, 10 (others heard); Starling, 25 (est.); Meadowlark, 1 (2 wintering in Sanctuary); Red Crossbill, 30 (est.); Redpoll, 20 (est.); Goldfinch, 4 (1 with the Redpolls, others scattered); Pine Siskin, 50 (est.); Tree Sparrow, 18; Black-capped Chickadee, 25 (est.). Total, 14 species, approximately 207 individuals. Also English Sparrow, 5. A Robin was reported December 25.—CAROLINE JONES.

Bennington, Vt.—Dec. 26; 8.45 to 11.45 A.M. About 3 miles on foot. Cloudy with a light fog at start; clearing by 10 A.M.; 1 to 6 in. of snow; wind south, light; temp. 40° at start, 45° at return. Observers together. American Merganser, 2; English Pheasant, 1; Ruffed Grouse, 6; Blue Jay, 2; Downy Woodpecker, 1; American Crow, 4; Starling, 4; Meadowlark, 1; Pine Siskin, 2; Tree Sparrow, 1; Chickadee, 25+; Acadian Chickadee, 1.—Total, 12 species, about 50 individuals.—L. S. and MRS. LUCRETIA H. ROSS.

Clarendon, Vt.—Dec. 26; 10 A.M. to 4 P.M. Partly cloudy; 4 in. of snow; wind south, light; temp. 40°. About 5 miles covered; on foot. Ruffed Grouse, 21; Saw-whet Owl, 1; Downy Woodpecker, 5; Blue Jay, 14; Crow, 3; Purple Finch, 1; White-winged Crossbill, 8; Goldfinch, 1; Pine Siskin, 77; Snow Bunting, 22; Tree Sparrow, 2; White-breasted Nuthatch, 4; Red-breasted Nuthatch, 2; Chickadee, 41; Golden-crowned Kinglet, 10. Total, 15 species, 212 individuals. Although the census-taker did not see any Robins or Bluebirds, Mr. and Mrs. L. N. Potter observed a Bluebird and 6 Robins in same locality where census was taken.—L. H. POTTER.

Wells River, Vt.—Dec. 25; 9 A.M. to 1 P.M. Cloudy; 6 in. of snow; no wind at start, moderately strong south wind at close; temp. 36° at start, 38° at return. Five miles on foot. Merganser, 1; Ruffed Grouse, 8; Hairy Woodpecker, 1; Downy Woodpecker, 1; Northern Pileated Woodpecker, 1; Blue Jay, 8; Crow, 4; Pine Grosbeak, 4; Crossbill, 9 (2 flocks); White-winged Crossbill, 6; Redpoll, 14 (2 flocks); Pine Siskin, 20 (4 flocks); Tree Sparrow, 3; Slate-colored Junco, 1; Red-breasted Nuthatch, 4; Chickadee, 36 (seven flocks); Golden-crowned Kinglet, 41 (6 flocks). Total 17 species, 162 individuals. A Saw-whet Owl and a pair of White-breasted Nuthatches were seen a few days earlier. Golden-crowned Kinglets have been quite numerous during the month.—WENDELL P. SMITH.

Framingham, Mass.—Dec. 24; 7 to 11 A.M. and 1 to 5 P.M. Mostly clear; 6- to 8-in. snow with soft crust; light southwest wind; temp. 32° to 42°. About 12 miles on foot. Observers mostly together. American Merganser, 3; Black Duck, 70 (est.); Hairy Woodpecker, 3; Downy Woodpecker, 2; Northern Flicker, 1; Blue Jay, 7; American Crow, 500 (est. roosting or flying to roost); Starling, 22; Meadowlark, 9; Tree Sparrow, 12; Slate-colored Junco, about 20 (1 flock); White-breasted Nuthatch, 2; Chickadee, 2; Golden-crowned Kinglet, 10. Total, 14 species, about 663 individuals. Mergansers and Ducks seen on ice bordering open water on Metropolitan Reservoir.—JOHN B. and R. H. BELKNAP.

Holyoke, Mass. (vicinity of Mt. Holyoke Range) Dec. 25; 7 A.M. to 12 M. Partly clear; wind west, very quiet; ground covered with 8- to 9-in. snow, somewhat crusted; Connecticut River ice-bound; temperature 29° at start, 43° at return. Eight to 10 miles, half by auto, half on foot. Three observers together.

Ring-necked Pheasant, 2; Kingfisher, 1; Hairy Woodpecker, 1; Downy Woodpecker, 7; Flicker, 4; Blue Jay 20 to 25; Crow, 150 to 200; Starling, 25 to 30; Meadowlark, 1; Purple Finch, 2; Tree Sparrow, 17; Junco, 30 to 35; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 10 to 12; Golden-crowned Kinglet, 4; Robin, 1. Total, 17 species, about 315 individuals.—AARON C. BAGG, ALDEN HEALEY and ARTHUR B. MITCHELL.

Ipswich, Mass. (Little Nahant to Ipswich).—Dec. 24; 10.30 A.M. to 3.30 P.M. Cloudy; 5-in. snow; no wind; temp. about 40° all day. Automobile and about 3 miles on foot. Holbecks' Grebe, 1; Horned Grebe, 13; Loon, 5; Black-backed Gull, 3; Herring Gull, about 2,000; Red-breasted Merganser, 30; Black Duck, 300; Golden-eye, 77; Bufflehead, 78; Oldsquaw, 47; White-winged Scoter, 26; Pheasant, 2; Downy Woodpecker, 1; Flicker, 2; Horned Lark, 10; Crow, 50; Starling, about 700; White-throated Sparrow, 1; Tree Sparrow, 34; Slate-colored Junco, 9; Song Sparrow, 5; Fox Sparrow, 1; Myrtle Warbler, 15; Brown Creeper, 2; Chickadee, 4; Golden-crowned Kinglet, 12; Robin 2. Total 27 species, about 3,400 individuals.—OSBORNE EARLE.

Leominster, Mass., and vicinity.—Dec. 25; 8 A.M. to 3 P.M. Cloudy; 6-in. snow, crusted; hard, noisy walking; wind southeast, light; temp. 38° at start, 35° at return. About 6 miles on foot. Herring Gull, 55; Pheasant, 4; Partridge, 1; Downy Woodpecker, 2; Flicker, 1;

Blue Jay, 10; Crow, 8; Starling, 25; Northern Shrike, 2; total, 9 species, about 100 individuals. Small birds, especially the 'affectionate' ones—Chickadees, Tree Sparrows, Nuthatches, and Grosbeaks—very scarce in this section this season.—EDWIN RUSSELL DAVIS.

Mattapoisett, Mass.—Dec. 23; 8.15 A.M. to 4.30 P.M. Clear; 1-in. snow; wind northwest, light; temp. 28° at start 34° at return. Nine miles on foot. Observers together. Holboell's Grebe, 1; Horned Grebe, 8; Loon, 2; Great Black-backed Gull, 1; Herring Gull, 110; Laughing [? Ed.] Gull, 2; Bonaparte's Gull, 1; American Merganser, 10; Red-breasted Merganser, 2; Black Duck, 35; Lesser Scaup Duck, 10; Golden-eye, 33; Old-squaw, 14; Scoter, 32; White-winged Scoter, 7; Surf Scoter, 6; Downy Woodpecker, 1; Flicker, 2; Horned Lark, 1; Blue Jay, 5; Crow, 9; Starling, 132; Purple Finch, 15; Redpoll, 1; Goldfinch, 6; Pine Siskin, 9; Slate-colored Junco, 47; Song Sparrow, 10; Fox Sparrow, 11; Myrtle Warbler, 40; Brown Creeper, 5; White-breasted Nuthatch, 1; Chickadee, 12; Golden-crowned Kinglet, 4; Robin, 6. Total, 35 species, 591 individuals.—H. P. KENNARD, J. E. NORTON SHAW, and F. L. W. RICHARDSON, JR.

New Bedford and Dartmouth, Mass.—Dec. 26; 9 A.M. to 4 P.M. Cloudy; very little snow, in patches; wind west, very light; temp. 41°. About 5 miles on foot, along shore of bay, or short distance inland: Observers together. Holboell's Grebe, 4; Horned Grebe, 28; Loon, 5; Black-backed Gull, 1; Herring Gull, 30; Ring-billed Gull, 21; American Merganser, 3; Mallard, 4; Black Ducks, 107; Scaup, 2; Golden-eye, 106; Bufflehead, 51; Old-squaw, 9; American Scoter, 5; White-winged Scoter, 25; Surf Scoter, 7; Ruddy Duck, 2; Ducks, (unidentified), 100; Pheasant, 1; Red-shouldered Hawk, 1; Flicker, 7; Prairie [? Ed.] Horned Lark, 37; Horned Lark, 16; Jay, 7; Crow, 11; Starling, 87; Meadowlark, 17 (several singing); Goldfinch, 30; White-crowned [? Ed.] Sparrow 1; White-throated Sparrow, 8; Tree Sparrow, 40; Junco, 30; Song Sparrow, 46; Fox Sparrow, 8; Towhee, 1; Myrtle Warbler, 72; Chickadee, 25; Robin, 1. Total, 37 species; 1,096 individuals.—EDITH FRANCES WALKER and ALICE PALMER TERRY.

Princeton, Mass. (Mt. Wachusett).—9 A.M. to 2.40 P.M. Cloudy, 5-in. snow; wind east; temp. 33° at start, 34° at return. From Centre to Slab City. Distance covered about 10 miles on foot. Observers together. Ruffed Grouse, 1; Hairy Woodpecker, 1; Blue Jay, 2; Crow, 1; Starling, 5; White-throated Sparrow, 1; Tree Sparrow, 7; Chickadee, 5; Golden-crowned Kinglet, 4. Total, 8 species, 25 individuals. (The White-throated Sparrow has been noted in same clump of underbrush for several days.)—MRS. WILLIAM ROPER, and MAUDE DOOLITTLE.

Sharon, Mass.—Dec. 25; 8 to 11.30 A.M., 1 to 3.30 P.M. Cloudy; 4-in. snow; wind southwest, light; temp. 32° at start; 40° on return. Six miles on foot. Observers separate. Quail, 6; Ruffed Grouse, 4; Pheasant, 1; Hairy Woodpecker, 2; Downy Woodpecker, 5; Flicker, 1; Blue Jay, 16; Crow, 12; Starling, 6; Goldfinch, 175; White-throated Sparrow, 4; Tree Sparrow, 8; Junco, 300; Song Sparrow, 1; Fox Sparrow, 1; Towhee, (adult male) 1, this bird has been seen for several weeks; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 20; Golden-crowned Kinglet, 18. Total, 20 species, 584 individuals.—(MRS. F. B.) HARRIET U. GOODE, and HARRY G. HIGBEE.

Sudbury, Mass.—Dec. 24; 10 A.M. to 1 P.M. and 2.45 to 4 P.M. Partly cloudy, 5-in. snow; no wind; temp. 36° to 48°. About 8 miles, part way with horse and sleigh. Ring-necked Pheasant, 1; Downy Woodpecker, 2; Flicker, 1; Blue Jay, 4; Crow, 80; Starling, 4; Red-winged Blackbird, 1; Meadowlark, 1; Goldfinch, 50; Tree Sparrow, 40; Junco, 25; Song Sparrow, 1; Chickadee, 3; Golden-crowned Kinglet, 1. Total, 14 species, 214 individuals. In November a flock of 75 Red-winged Blackbirds was seen either in a corn-field or the marshes nearby. December 3 we found 15.—L. M. SMITH.

Williamstown, Mass.—Dec. 26; 1.20 to 4.20 P.M. Cloudy; about 6-in. snow left on ground; light southwest wind; temp. 42° at start and return. Eight miles. Crow, 2; Starling, 50; Goldfinch, 1; Pine Siskin, 10; Tree Sparrow, 4; Brown Creeper, 3; White-breasted Nuthatch,

1; Chickadee, 1; Golden-crowned Kinglet, 7. Total; 9 species, 85 individuals.—WM. J. CARTWRIGHT.

Providence, R. I.—Dec. 23; from before daylight until after dark. Slightly cloudy or clear; 3-in. snow (fresh snow 1-in. on 22d); wind; southwest, 14-24 vel. in A.M., 8 vel. in late P.M., temp. 29° at start, max. 38° at 4 P.M. Roger Williams Park, car to Pawtuxet, Gaspee Point, Pawtuxet, car to Bullock's Point, Nayatt, Barrington Beach, Barrington, Warren River, and car to The Grotto, Providence. (From point 7 miles south of center of city on west shore of Narragansett Bay, to city, to point 9 miles south of center of city on east shore, and return to city.) North to south extent, 9 miles; east to west extent, 5 miles. Walking 20 miles; riding, 17 miles. Horned Grebe, 3; Herring Gull, 400+; Black Duck, 400+; American Scaup, 10,300+; American Golden-eye, 37; Black-crowned Night Heron, 5; Bob-white, 3 (tracks of 2 other covies); Ring-necked Pheasant, 1; Sharp-shinned Hawk, 1; Sparrow Hawk, 1; Belted Kingfisher, 1; Downy Woodpecker, 8; Northern Flicker, 9; Blue Jay, 47; American Crow, 26; Starling, 100+; Meadowlark, 17; Purple Finch, 8; American Goldfinch, 60; Pine Siskin, 1; Tree Sparrow, 160+; Field Sparrow, 1; Slate-colored Junco, 160+; Song Sparrow, 17; Myrtle Warbler, 3; Brown Creeper, 1; White-bellied Nuthatch, 2; Black-capped Chickadee 40+; Golden-crowned Kinglet, 35; Horned Lark (?) tracks. Total, 29 species, 11,800+ individuals. Dec. 23, tracks seen of large flock of walking ground birds in weeds of large field, probably Horned Larks. Dec. 20, 1 Dickcissel (?) trapped at Pawtuxet. Live bird retained in cage. [A detailed description of this bird leaves no doubt in the Editor's mind that it is correctly identified.] *Black-crowned Night Herons*. A few winter regularly in hemlocks in Grotto on grounds of Butler's Hospital, Providence.—G. C. *Sharp-shinned Hawk*. A little larger than Flicker, brown above, rounded wings, long, nearly square tail, reddish markings underneath especially under bend of wing, accipitrine flight.—H. E. C., J. A., G. C. *Field Sparrow*. Observed at 8 to 20 ft. for three minutes. Decidedly smaller than Song Sparrows a few feet from it. Reddish crown, not sharply defined. Pink bill. Shape and general brightness of upperparts characteristic.—H. E. C.—HENRY E. CHILDS, J. ALDRICH, G. CLARK, R. BUGBEE, P. BUGBEE, P. KILLEEN, D. SWIFT (Tech. Bird Club).

East Providence, R. I. (Ten Mile River and Arcade Pine Woods).—Dec. 25; 11 A.M. to 1.30 P.M. Ground well covered with snow; calm, overcast; temp. slightly above freezing. Three miles on foot. Observers together. Herring Gull, 1; Ruffed Grouse (tracks) 1; Downy Woodpecker, 1; Blue Jay, 6; American Crow, 7; Junco, 5; Brown Creeper, 1; Winter Wren, 1; Black-capped Chickadee, 10; Golden-crowned Kinglet, 2. Total, 10 species, 35 individuals.—FRANCIS HARPER and ROBERT CUSHMAN MURPHY.

Johnston and Providence, R. I.—Dec. 24; 9 A.M. to 5 P.M. Partly cloudy; 1½-in. snow on ground; wind southwest at start, south at finish, light; temp. 36° to 42°. A very heavy fog until 9 A.M. Black Duck, 2; Scaup, 20; Herring Gull, 25; Bob-white, 8; Ruffed Grouse, 2; Downy Woodpecker, 1; Hairy Woodpecker, 1; Flicker, 4; Crow, 15; Blue Jay, 10; Starling, 250; Meadowlark, 2; Song Sparrow, 6; Tree Sparrow, 20; Junco, 50; Myrtle Warbler, 5; White-breasted Nuthatch, 1; Chickadee, 12; Golden-crowned Kinglet, 4. Total, 19 species, 438 individuals.—JOHN W. RUSSELL.

Warwick, R. I.—Dec. 24; 10 A.M. to 4 P.M. Partly cloudy, fog over the bay; 3 in. of snow and ice; wind southwest, light; temp. 38° at start, 42° at return. Nine miles on foot. Sparrow Hawk, 1; Downy Woodpecker, 2; Flicker, 11; Horned Lark, 5; Blue Jay, 20; Crow, 29; Starling, 34; Meadowlark, 6; Purple Finch, 1; Goldfinch, 5; Pine Siskin, 4; Tree Sparrow, 24; Junco, 28; Song Sparrow, 7; Fox Sparrow, 2; Myrtle Warbler, 3; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 12; Golden-crowned Kinglet, 9. Total, 20 species, 206 individuals.—HARRY S. HATHAWAY.

Woonsocket, R. I.—Dec. 27; 9.20 A.M. to 4 P.M. Hazy, wan sun; 5 in. of snow; no wind; temp. 34° at start, and 32° at return. Bernon Heights, Woonsocket, to Bertenshaw's Woods, Coe farm woods, Hammond's swamp, Smithfield road, up Sayles Hill, and back through the town of Manville and Manville Road. Ten miles on foot. Gull, 1; Ruffed Grouse, 3; Ring-

necked Pheasant, 2; Sparrow Hawk, 1; Hairy Woodpecker, 2; Downy Woodpecker, 6; Flicker, 3; Blue Jay, 13 (more heard); Crow, 15 (more heard); Starling, 1; Slate-colored Junco, about 60; Fox Sparrow, 2; Nuthatch heard; Chickadee, about 80; Golden-crowned Kinglet, 11. Total, 15 species, about 213 individuals. English Sparrow, 2. Starlings used to be very numerous here, but have thinned out a good deal.—HELEN L. CARD, Girl Scout.

Bristol, Conn. (Northeast section).—Dec. 24; 7 A.M. to 4 P.M. Sky about one-fourth overcast; 5-in. crusted old snow (not quite hard enough to bear one's weight); calm, at start wind southwest, light, at noon and at return; temp. 30° at start, 42° at return. About 10 miles on foot, and 2 miles by auto, on return. R. W. Ford and the writer together until noon, and the last 2 miles in his car. Screech Owl, 1; Hairy Woodpecker, 2; Downy Woodpecker, 4; Blue Jay, 33; Crow, 26; Starling, 111; Meadowlark, 6; Rusty Blackbird (belated, feeding at open hole in swamp), 1; American Goldfinch, 1; Tree Sparrow, 72; Junco, 15; Song Sparrow, 5; Brown Creeper, 2; White-breasted Nuthatch, 2; Chickadee, 3; Golden-crowned Kinglet, 4; Robin, 1. Total, 17 species, 289 individuals.—FRANK BRUEN and ROYAL W. FORD.

Fairfield, Conn. (Birdcraft Sanctuary to Fairfield Beach).—Dec. 25; 8 A.M. to 4 P.M. Ground bare; temp. 35°. Herring Gull, 200; Golden-eye, 12; Old-squaw, 40; Surf Scoter, 2; White-winged Scoter, 30; Black-crowned Night Heron, 8; Red-shouldered Hawk, 1; Sparrow Hawk, 2; Downy Woodpecker, 5; Flicker, 1; Blue Jay, 12; Crow, 6; Starling, 200 (flock); Purple Finch, 9; Goldfinch, 12; White-throated Sparrow, 6; Tree Sparrow, 3; Junco, 20; Song Sparrow, 6; Fox Sparrow, 1; Towhee, 1; Myrtle Warbler, 3; Golden-crowned Kinglet, 5; Robin, 2. Total, 24 species, 577 individuals. A Pipit seen on December 23.—FRANK NORAK.

Fairfield and Westport, Conn.—Dec. 26; 8.30 A.M. to 4.15 P.M. Cloudy, clearing in the afternoon, but with fog along the coast throughout the day; ground bare; wind southwest, light to medium. Temp. 38° to 44°. Eighteen miles on foot. Horned Grebe, 6; Black-backed Gull, 4; Herring Gull, 452; Red-breasted Merganser, 1; Black Duck, 7; Scaup Duck, 35; Golden-eye, 18; Old-squaw, 11; White-winged Scoter, 21; Surf Scoter, 2; Marsh Hawk, 1; Sparrow Hawk, 1; Belted Kingfisher, 2; Downy Woodpecker, 3; Horned Lark, 24; Blue Jay, 9; Crow, 6; Starling, 106; Purple Finch, 4; Snow Bunting, 1; Tree Sparrow, 87; Junco, 17; Song Sparrow, 13; Myrtle Warbler, 2; Brown Creeper, 3; White-breasted Nuthatch, 4; Golden-crowned Kinglet, 5. Total, 27 species, 845 individuals. Pine Siskins were abundant Dec. 24. Chickadees are very scarce.—ARETAS A. SAUNDERS.

Hartford, Conn.—Dec. 25; 11 A.M. to 1.30 P.M. Partly cloudy; ground snow-covered; no wind; temp. 38°. Ruffed Grouse, 2; Barred Owl, 2; Screech Owl, 1; Hairy Woodpecker, 2; Downy Woodpecker, 3; Blue Jay, 25; Crow, 173; Starling, 37; Goldfinch, 24; Tree Sparrow, 56; Slate-colored Junco, 65; White-breasted Nuthatch, 5; Chickadee 17. Total, 13 species, 412 individuals.—CLIFFORD M. CASE.

West Hartford, Conn.—Dec. 24; 7 A.M. to 1 P.M. Partly cloudy; 8 in. of snow and ice, covered with a breaking crust; wind light and variable; temp. 28° at start, 40° at return. Ten miles on foot. Ruffed Grouse, 3; Sparrow Hawk, 1; Barred Owl, 1; Hairy Woodpecker, 1; Downy Woodpecker, 3; Northern Pileated Woodpecker, 2; Blue Jay, 38; Crow, 175; Starling, 135; Redpoll, 75; Goldfinch, 10; Tree Sparrow, 55; Junco, 33; Song Sparrow, 8; White-breasted Nuthatch, 2; Chickadee, 2. Total, 16 species, 534 individuals.—EDWIN H. MUNGER.

Meriden, Conn.—Dec. 25; 1 to 4.30 P.M. Partly cloudy, gradually clearing; 3 in. of crusted snow on ground; no wind; temp. 40° to 35°; 5 to 6-mile hike on outskirts of residential section and in farming district. Downy Woodpecker, 4; Crow, 9, afternoon flight north; Starling, 200+; Meadowlark, 3; Goldfinch, 125+; Tree Sparrow, 5; Junco, 3; Song Sparrow, 2. Total, 8 species, over 351 individuals.—LESTER W. SMITH.

New Haven, Conn. (East Rock, Edgewood, and West Rock Parks).—Dec. 23; 9 A.M. to 12 M. and 1 to 5.30 P.M. Clear; ground lightly covered with crusted snow that fell a week ago; ice on Lake Whitney, but small streams still open; temp. around 40° all day. Twelve miles on foot. Black-crowned Night Heron, 3; Hawk (Red-shouldered or Red-tailed), 2; Belted Kingfisher, 1; Downy Woodpecker, 6; Northern Flicker, 1; Blue Jay, 6; Crow, 7;

Starling, 100; Grackle, 2; American Goldfinch, 1; Tree Sparrow, 45; Slate-colored Junco, 40; Song Sparrow, 3; Brown Creeper, 2; White-breasted Nuthatch, 1; Golden-crowned Kinglet, 3. Total, 16 species, about 223 individuals. Herring Gulls are fairly common, and there is a flock of White-throated Sparrows wintering here, but neither species could be found today.—HENRY BULL.

New London, Conn.—Dec. 23; 9.40 A.M. to 4 P.M. Cloudy, then clear and then cloudy again with a snow flurry; ground bare, almost no wind till P.M. then light west; temp. 36° Groton Long Point by car and back on foot; walk of 8 miles. Horned Grebe, 13; Northern Loon, 2; Black Backed Gull, 1; Herring Gull, 57; American Scaup Duck, 130; American Golden-eye, 8; American Scoter, 9; Great Blue Heron, 1; Red-shouldered Hawk, 1; Kingfisher, 1; Downy Woodpecker, 1; Flicker, 1; American Crow, 30; Starling, 20; Meadowlark, 5; Snow Bunting, 15; Tree Sparrow, 2; Junco, 3; Song Sparrow, 5; Chickadee, 2. Total, 20 species, 307 individuals.—FRANCES MINER GRAVES.

South Windsor, Conn.—Dec. 25; five hours. Morning cloudy, about 4-in. snow, covered with ice, walking difficult; noon, fair; wind west; temp. 30° to 40°. About seven miles covered. Herring Gull, 9; American Merganser, 20; Black Duck, 2; Quail, 12; Ring-necked Pheasant, 4; Goshawk, 1; Red-tailed Hawk, 1; Red-shouldered Hawk, 1; Sparrow Hawk, 4; Long-eared Owl, 1; Short-eared Owl, 1; Screech Owl, 2; Downy Woodpecker, 4; Blue Jay, 10; Crow, 85; Starling, 45; Meadowlark, 6; Purple Finch, (est.) 100; Goldfinch (est.), 75; Tree Sparrow (est.), 125; Song Sparrow, 15; Swamp Sparrow, 3; Northern Shrike, 1; Brown Creeper, 4; White-breasted Nuthatch, 6. Total, 25 species, about 537 individuals.—C. W. VIBERT.

Stratford, Conn.—Dec. 24; 1 P.M. to 2 P.M. Clear; 4-in. snow on ground; temp. 40°. Area about 1/8 mile square. Ruffed Grouse, 1; Downy Woodpecker, 12; Blue Jay, 6; Crow, 10; Purple Finch, 15; Goldfinch, 10; Pine Siskin, 50; Tree Sparrow, 15; Junco, 30; Myrtle Warbler, 1; Chickadee, 5; Golden-crowned Kinglet, 1; Hermit Thrush, 2; Robin, 8. Total, 14 species, 157 individuals.—WILBUR F. SMITH.

Albany, N. Y. (west from city).—Dec. 24; 8.30 A.M. to 2.15 P.M. Cloudy, 4 in. of snow; wind west, light; temp. 32° at start, 36° at return. Seven miles on foot. Ruffed Grouse, 3; Sparrow Hawk, 1; Downy Woodpecker, 2; Blue Jay, 8; Crow, 550; Starling, 750; Goldfinch, 2; Pine Siskin, 50; Tree Sparrow, 80; Brown Creeper, 2; White-breasted Nuthatch, 2; Chickadee, 11; Golden-crowned Kinglet, 1. Total, 13 species, about 1,500 individuals. Arctic Three-toed Woodpecker seen October 29. Golden-crowned Kinglets numerous all fall.—CLARENCE HOUGHTON.

Buffalo, N. Y. (Niagara River shores).—Dec. 25; 9.15 A.M. to 1.45 P.M. Mostly clear; about 4 in. of snow, melting rapidly; practically no wind; temp. 35° at start, 49° at return. Observers together. Herring Gull, 250; Ring-billed Gull, 150; Bonaparte's Gull, 450; Merganser, 8; Red-breasted Merganser, 12; Mallard, 9; Black Duck, 350; Scaup Duck, 750; Golden-eye, 225; Bufflehead, 7; Old-squaw, 2; Ring-necked Pheasant, 8; Cooper's Hawk, 1; Downy Woodpecker, 1; Northern Flicker, 1; Crow, 225; Starling, 11; Meadowlark, 2; Song Sparrow, 2; Chickadee, 8. Total, 20 species, about 2,472 individuals.—JAMES SAVAGE and THOMAS L. BOURNE.

Collins, N. Y. (Hospital grounds and Cattaraugus Indian Reservation).—Dec. 25, 9 to 11 A.M.; 2.20 to 4.30 P.M. Six in. of melting snow, walking difficult; sunshine intermittent, at times overcast; light southwest wind; temp. 45°; exceptional abundance of bittersweet, sumac, and black alder berries. Herring Gull, 2; Partridge, 1; Downy Woodpecker, 2; Prairie Horned Lark, 5; Blue Jay, 1; American Crow, 11; Starling, 1 (recently a large flock); Pine Grosbeak, 7; Purple Finch, 2; American Goldfinch, 3; Tree Sparrow, 20; Junco, 25 (recently large flocks of above 2 species); Song Sparrow, 1; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 16; Golden-crowned Kinglet, 2; Robin, 3. Total, 18 species, 106 individuals.—ANNE E. PERKINS.

Cruger's Island (Dutchess Co.) N. Y.—Dec. 25; 9.30 A.M. to 4 P.M. Foggy, clearing at noon; 6 in. of snow; wind south, light; temp. 40°. From Rhinebeck to Barrytown, 7 miles

by motor, thence to Cruger's Island, 2 miles on foot, along the Hudson River and back over the same route. River almost entirely frozen over. Herring Gull, 15; American Merganser, 12; Black Duck, 32; Golden-eye, 3; Red-tailed Hawk, 1; Sparrow Hawk, 1; Kingfisher, 1; Hairy Woodpecker, 1; Downy Woodpecker, 4; Blue Jay, 6; Crow, 20; Starling, 12; Purple Finch, 3; Goldfinch, 3; Pine Siskin, 5; Tree Sparrow, 30; Junco, 6; Song Sparrow, 2; Brown Creeper, 1; White-breasted Nuthatch, 6; Chickadee, 18; Golden-crowned Kinglet, 3. Total 22 species, 185 individuals, (+House Sparrow, 10).—MANNSELL S. CROSBY.

Fort Plain, N. Y.—Dec. 23; 9.30 A.M. to 12.30 P.M. and 1.30 to 5.30 P.M. Cloudy; 8-in. snow; wind northwest, light; 2-hour blizzard in P.M.; temp. 30° at start; 32° at return. Route—6 miles along Mohawk River, river bluffs and Erie canal; Oak Hill (300 acres of woodland); creek valleys and open fields. About 15 miles on foot, accompanied by beagle, 'Sam.' Ruffed Grouse, 4; Downy Woodpecker, 5; American Crow, 120; Starling, 30; Pine Grosbeak, 10; Redpoll, 12; Snow Bunting, 1; Tree Sparrow, 9; Northern Shrike, 1; Brown Creeper, 6; Black-capped Chickadee, 9; Golden-crowned Kinglet, 4; Total, 12 species, 211 individuals. Ring-necked Pheasant tracks in snow.—DOUGLAS AYRES, JR.

Garland, N. Y. (and vicinity).—Dec. 26; 11.45 A.M. to 3.15 P.M. Cloudy; thawing, little snow; no wind; temp. 36° at start, 38° at return. About 5 miles on foot. Herring Gull, 22; Ring-necked Pheasant 12; Screech Owl, 1; Downy Woodpecker, 2; Crow, 29; Starling, 1; Chipping [? Ed.] Sparrow, 2; Slate-colored Junco, 20; Brown Creeper, 4; White-breasted Nuthatch, 2. Total, 10 species, 95 individuals. English Sparrow, 62. The Chipping Sparrows and Brown Creepers were in company with Juncos.—GEORGE M. SMITH.

Geneva, N. Y. (Glenwood, border city swamp, cedar swamp by the Canandaigua outlet, east shore Canandaigua Lake, and 5 miles along Seneca Lake).—Dec. 26; 8 A.M. to 4 P.M. Clear in morning, cloudy in P.M. Melting snow; wind light; temp. 38° to 42°. Observers mostly separated. Horned Grebe, 21; Herring Gull, 86; Ring-billed Gull, 4; American Merganser, 3; Mallard, 3; Black Duck, 300; Redhead, 14,000+; Canvasback, 150+; Scaup, 150+; Lesser Scaup, 17; Golden-eye, 9; Bufflehead, 4; Old-squaw, 3; Canada Goose, 26; Ring-necked Pheasant, 31; Sparrow Hawk, 1; Hairy Woodpecker, 2; Downy Woodpecker, 8; Crow, 2,300+; Redpoll, 10; American Goldfinch, 7; Pine Siskin, 80; Purple Finch, 6; Tree Sparrow, 40; Song Sparrow, 6; Junco, 30; Brown Creeper, 3; White-breasted Nuthatch, 18; Chickadee, 29; Golden-crowned Kinglet, 19; Robin, 1. Total, 31 species, about 18,716 individuals. House Sparrow, 300. The Ducks were counted as carefully as possible with a 33-power telescope. There were 6 large rafts and 5 smaller flocks of Redheads.—W. W. GRANT, MRS. H. H. HENDERSON, GLEN GRANT, M. S. JOHNSTON, DR. H. C. BURGESS, E. H. EATON.

Hall, N. Y. (south and southeast of Hall).—Dec. 27; 8 A.M. to 4 P.M. Heavy fog, rain and snow; 6 to 8 in. of snow in the woods; northeast wind; temp. 32° to 30°. Pheasant, 51; Crow, 1,000+; Red-shouldered Hawk, 1; Blue Jay, 1; Hairy Woodpecker, 8; Red-headed Woodpecker, 18; Red-bellied Woodpecker, 2; Downy Woodpecker, 13; Starling, 6; Cedar Waxwing(?), 3; White-breasted Nuthatch, 18; Chickadee, 21; Purple Finch, 6; Tree Sparrow, 64; Brown Creeper, 4. Total, 15 species, 1,216 individuals.—H. A. SOUTHERLAND.

Ithaca, N. Y.—Dec. 26; 8.30 A.M. to 3 P.M. Clear; snow in patches, wind north; temp. 40° at start, 45° at return. Seven miles on foot. Holboell's Grebe, 1; Horned Grebe, 25; Loon, 1; Herring Gull, 150; American Merganser, 12; Canvasback, 35; American Golden-eye, 1; Ruddy Duck, 5; Ring-necked Pheasant, 3; Sparrow Hawk, 1; Downy Woodpecker, 5; Flicker, 2; Crow, 50; Tree Sparrow, 9; Slate-colored Junco, 7; Song Sparrow, 4; Brown Creeper, 2; White-breasted Nuthatch, 6; Black-capped Chickadee, 15; Golden-crowned Kinglet, 8. Total, 20 species, 342 individuals. English Sparrow, 12.—JOHN P. YOUNG.

Rochester, N. Y. (Highland Park and vicinity, Ontario Beach and Durand-Eastman Parks and vicinities).—Dec. 26; 7.30 A.M. to 5 P.M. Cloudy, ground mostly bare, with patches of snow 2 to 3 in. deep; wind west, 13 miles per hour; temp. 38° at start, 42° at return. Ten miles on foot. Observers mostly together. Horned Grebe, 1; Herring Gull, 450 (est.); Ring-

billed Gull, 50; American Merganser, 10; Scaup, 4; Golden-eye, 4; Old-squaw, 30; Pheasant, 14; Marsh Hawk, 1; Downy Woodpecker, 4; Red-headed Woodpecker, 1; Crow, 30; Starling, 1; Tree Sparrow, 30; Slate-colored Junco, 10; Song Sparrow, 6; Brown Creeper, 1; White-breasted Nuthatch, 3; Chickadee, 4. Total, 19 species, about 654 individuals. Two Robins were seen by G. W. Bahringer and 1 Screech Owl by W. W. Wing in Highland Park on the 26th and 4 Robins by Mr. Edson on the 27th; 1 Hairy Woodpecker, 2 Pine Siskins, 5 Golden-crowned Kinglets on the 23d by Mr. Edson.—WM. L. G. EDSON, R. E. HORSEY, F. RITTER SHUMWAY, and A. W. EDSON.

Rochester, N. Y. (Bushnells Basin).—Dec. 23; 10 A.M. to 4 P.M. Cloudy; snow flurries in A.M., turning to rain in P.M., 4 in. of snow; wind east, light; temp. 35° at start, 38° at return. Ruffed Grouse, 1; Ring-necked Pheasant, 5; Long-eared Owl, 1; Hairy Woodpecker, 2; Downy Woodpecker, 5; Crow, 10; Redpoll, 20; Tree Sparrow, 50; Slate-colored Junco, 10; Catbird, 1; Brown Creeper, 2; White-breasted Nuthatch, 7; Golden-crowned Kinglet, 4. Total, 14 species, 148 individuals. The Catbird was very tame and approached to within 5 feet.—OSCAR F. SCHAEFER.

Scarborough, N. Y. (and vicinity).—Dec. 27; 11.15 A.M. to 5 P.M. Fair and cloudy (after 2 P.M.); wind northwest, changing, moderate; temp. 45° (approximately). About 6 miles on foot. Herring Gull, 12; American Merganser, 5; American Golden-eye, 5; Red-shouldered Hawk, 1; Hairy Woodpecker, 2; Downy Woodpecker, 5; Flicker, 3; Crow, 20; Meadowlark, 1; Purple Finch, 1; Goldfinch, 6; Pine Siskin, 4; Tree Sparrow, 40; Junco, 4; Song Sparrow, 2; Golden-crowned Kinglet, 3; Ruby-crowned Kinglet, 1; Brown Creeper, 1; White-breasted Nuthatch, 6; Bluebird, 20 (1 flock). Total, 20 species, 143 individuals. The Ruby-crowned Kinglet was observed under favorable conditions. Absence of head stripes was noted, together with the presence of the eye-ring. The characteristic call note was also heard.—LAIDLAW WILLIAMS.

Syracuse, N. Y. (Liverpool to Long Branch and a city park).—Dec. 24; 8.30 A.M. to 4 P.M. Cloudy; no wind; 8-in. snow; temp. 40° at start; 41° at return. About 7 miles on foot. Herring Gull, 40; Ring-necked Pheasant, 1; Hairy Woodpecker, 2; Downy Woodpecker, 6; Crow, 5; Purple Finch, 18 (my first winter record; they were in two flocks of 12 and 6 and in both cases feeding on ash but were about a mile apart; had opportunity to watch them for some time and see clearly all markings); Tree Sparrow, 25; Song Sparrow, 2; Brown Creeper, 3; White-breasted Nuthatch, 6; Chickadee, 15. Total, 11 species, 123 individuals.—NETTIE M. SADLER.

Waterford, N. Y.—Dec. 24; 9 A.M. to 12M. Black, cloudy day; 5 in. of snow; wind south, light; temp. 38°. Five miles along Hudson, abandoned Champlain canal, small marsh, small wood-lot, open fields; elevation, tide-level. Hudson River frozen (5 in. of ice) except in one spot below a dam. Herring Gull, 1; American Merganser, 30; Black Duck, 40; Golden-eye, 10; Pheasant, 2; Sparrow Hawk, 1; Downy, 2; Crow, 20; Starling, 40; Tree Sparrow, 70; Song Sparrow, 2; Brown Creeper, 2; Chickadee, 3. Total, 13 species, 223 individuals. House Sparrow, 150. Dec. 25; same route: Redpoll, 40; Pine Siskin, 160; Red-winged Blackbird, 3; Meadowlark, 11; White-breasted Nuthatch, 1. Red-wings within 20 feet, seen through 8× glasses; Redpolls and Siskins under same conditions.—EDGAR BEDELL.

New York City (Van Cortlandt Park, Bronx Park, Baychester Marshes and Pelham Bay).—Dec. 23; 9 A.M. to 4.30 P.M. Cloudy and hazy, light showers; ground nearly bare; wind light, southwest; temp. 45° to 35°. Holboell's Grebe, 1; Horned Grebe, 4; Herring Gull, 300; American Merganser, 18; Red-breasted Merganser, 5; Scaup, 23; Golden-eye, 17; Old-squaw, 4; American Scoter, 5; Black-crowned Night Heron, 70 (Bronx Park colony); Red-tailed Hawk, 2; Red-shouldered Hawk, 1; Bald Eagle, 1; Hairy Woodpecker, 1; Downy Woodpecker, 15; Red-headed Woodpecker, 3; Blue Jay, 18; Crow, 14; Starling, 60; Meadowlark, 4; White-throated Sparrow, 27; Tree Sparrow, 36; Field Sparrow, 10; Junco, 77; Song Sparrow, 2; Fox Sparrow, 1; Towhee, 1; Winter Wren, 2; Brown Creeper, 4; White-breasted Nuthatch, 5; Golden-crowned Kinglet, 8; Robin, 1. Total, 32 species, 770 individuals.—R. FRIEDMAN, L. N. NICHOLS.

Van Cortlandt Park (New York City).—Dec. 27; 10.50 A.M. to 4.50 P.M. Clear in the morning; afternoon cloudy; ground muddy; snow melting; moderate east wind from 1 to 3 P.M.; temp. about 40° to 45°. Herring Gull, 92; Red-tailed(?) Hawk, 1; Downy Woodpecker, 4; Blue Jay, 6; American Crow, 13; Starling, 1; Red-winged Blackbird, 5; Purple Finch (1 pair), 2; Tree Sparrow, 3; Slate-colored Junco, 50; Song Sparrow, 13; Brown Creeper, 1; White-breasted Nuthatch, 9. Total, 13 species, 209 individuals. Four of the Red-winged Blackbirds were in a flock, starting south at dusk.—HENRY J. EISENSTEIN.

New York City (Pelham Bay Park, Bronx Park and Van Cortlandt Park). —Dec. 27. 7.30 A.M. to 5.45 P.M. Cloudy; 1½ in. of snow; light northwest wind; temp. 32° to 41°. About 12 miles on foot. Horned Grebe, 12; Great Black-backed Gull, 1; Herring Gull, 500; Ring-billed Gull, 2; Mallard, 2; Wood Duck, 2; Scaup, 12; American Golden-eye, 12; Ring-necked Pheasant, 1; Cooper's Hawk, 1; Red-tailed Hawk, 1; Sparrow Hawk, 1; Hairy Woodpecker, 1; Downy Woodpecker, 6; Red-headed Woodpecker, 1; Northern Flicker, 1; Horned Lark(?), 1; Blue Jay, 12; American Crow, 25; Starling, 100; Red-winged Blackbird, 1 female (in swamp of Van Cortlandt Park); Meadowlark, 6; Purple Finch, 9; American Goldfinch, 5; Pine Siskin, 40; White-throated Sparrow, 12; Tree Sparrow, 12; Slate-colored Junco, 6; Song Sparrow, 8; Fox Sparrow, 2; Towhee, 1 female, 5 males (seen in damp, low woods off Allerton Avenue); Catbird, 1 (has been observed in Bronx Park at various times during fall); Brown Creeper, 1; Golden-crowned Kinglet, 6; Robin, 6. Total, 35 species, 827 individuals. Dec. 20, in Bronx Park, 1 Hermit Thrush was seen by John and Richard Kuerzi.—F. J. KUERZI and sons, JOHN and RICHARD.

New York City (Van Cortlandt Park, Lincoln, city of Yonkers), Moshulu Parkway, Bronx Park, Unionport, Castle Hill and Clason Point.—Dec. 24; 8.50 A.M. to 4.30 P.M. Partly cloudy; dense fog in late afternoon; ground bare in open, light snow in woods; running water clear; ponds frozen; no wind; temp. 36° at start. Trolley used between Bronx Park and Unionport; rest of route on foot. G. E. Hix and Roy Thompson together all day, Bernard Nathan joining them in Bronx Park. Herring Gull, 200; American Merganser, 1; Scaup, 100 (flock); Black-crowned Night Heron, 64 (Bronx Park colony); Red-tailed Hawk, 1; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Downy Woodpecker, 5; Red-headed Woodpecker, 2; Blue Jay, 1; American Crow, 16; Starling, 150; Red-winged Blackbird, 5 (flock); Rusty Blackbird, 1; Purple Finch, 1; Goldfinch, 2; Pine Siskin, 30 (flock); White-throated Sparrow, 30; Tree Sparrow, 5; Junco, 16; Song Sparrow, 54; Swamp Sparrow, 1; Fox Sparrow, 3; Brown Creeper, 3; White-bearded Nuthatch, 3; Chickadee, 1; Golden-crowned Kinglet, 1; Robin, 6 (flock). Total, 28 species, about 700 individuals. Some other observers saw a Barred Owl in the hemlock forest in Bronx Park. A Catbird was observed in Bronx Park on December 16. It had been reported several times previously.—GEORGE E. HIX and BOY SCOUTS ROY THOMPSON and BERNARD NATHAN.

New York City (Pelham Bay Park and City Island).—Dec. 21, 9.50 A.M. to 5 P.M. Cloudy with slight drizzle; light breeze; little snow on ground; temp. 37° to 54°. Herring Gull, 1,000; Great Black-backed Gull, 1; Black Duck, 2; Scaup, 8; Golden-eye, 34; White-winged Scoter, 1; Ring-necked Pheasant, 4 (females); Red-shouldered Hawk, 2; Downy Woodpecker, 1; Flicker, 1; Blue Jay, 3; Crow, 15; Starling, 50; Meadowlark, 20; Savannah Sparrow, 1; Tree Sparrow, 30; White-throated Sparrow, 45; Song Sparrow, 15; Swamp Sparrow, 1; Fox Sparrow, 1; Brown Creeper, 4. Total, 21 species, 1,253 individuals. Distinctive markings of Savannah Sparrow noted, and size compared with Tree Sparrow.—EUGENE EISENMAN.

Staten Island, N. Y. (Moravian Cemetery, Great Kills, and Princess Bay).—Dec. 21. 8 A.M. to 4 P.M. Foggy; temperature about 35°; twelve miles on foot. Observers together. Loon, 2; Herring Gull, 3,000; Black Duck, 25; American Scaup Duck, 25; American Golden-eye, 15; Bufflehead, 1; Oldsquaw, 2; White-winged Scoter, 2; Marsh Hawk, 1; Sparrow Hawk, 1; Downy Woodpecker, 3; Prairie [? Ed.] Horned Lark, 9; Blue Jay, 5; American Crow, 8; Starling, 100; Meadowlark, 2; Pine Siskin, 15; Goldfinch, 10; White-throated Sparrow, 1; Tree Sparrow, 50; Slate-colored Junco, 15; Song Sparrow, 6; Cardinal, 1; Myrtle Warbler, 6; Brown Creeper,

2; Chickadee, 1; Robin, 10. Total, 27 species, 3,000 (est.) individuals.—GEORGE B. WILMOTT and LESTER L. WALSH, (Bird Lovers' Club of Brooklyn).

East Marion, L. I., N. Y.—Dec. 26; 8 A.M. to 3.30 P.M. Ground bare; slightly foggy in A.M. clearing to sunny in P.M.; wind south at start, west at return, very light; temp. 37° at start, 40° at return. About 4 miles on foot along bay shore, through woods and fields. Mrs. French alone in A.M., observers together in P.M. Horned Grebe, 17; Loon, 3; Black-backed Gull, 2; Ring-billed Gull, 2; Herring Gull, 150+; Red-breasted Merganser, 3; Scaup, 400+; American Golden-eye, 7; Old-squaw, 50+; White-winged Scoter, 150+; Surf Scoter, 12; Duck, 100+ (unidentified on account of fog); Downy Woodpecker, 2; Flicker, 1; Blue Jay, 8; Crow, 25; Starling, 10; Goldfinch, 21; White-throated Sparrow, 1; Tree Sparrow, 18; Song Sparrow, 23; Cedar Waxwing, 1; Myrtle Warbler, 1; Brown Thrasher, 1 (seen with field-glasses several times as close as 15 ft.); Chickadee, 14; Golden-crowned Kinglet, 5. Total, 25 (identified) species, 1,030+ individuals.—MR. and MRS. HAROLD P. FRENCH.

Garden City, L. I., N. Y.—Dec. 24; at intervals all day. Fair, foggy in early morning; ground bare; wind light; temp. about 40°. Village of Garden City and adjoining fields. Marsh Hawk, 1; Sparrow Hawk, 1; Downy Woodpecker, 2; American Crow, 3; Starling, 100; White-throated Sparrow, 5; Tree Sparrow, 8; Chipping Sparrow, 1; Junco, 25; Song Sparrow, 9; Brown Creeper, 1; Brown Thrasher, 1. Total, 12 species, 157 individuals. Also House Sparrow, 100. The Thrasher has been repeatedly found in one spot for a month. The Chipping Sparrow was observed through binoculars as well as could be desired in a mixed flock of the four other Sparrows. Small size, brownish bill, black line back of eye, etc., well seen. Fish Crows and a Herring Gull flying over, both on Dec. 23 and 25. One Golden-crowned Kinglet and 3 Meadowlarks Dec. 25. A Siskin Dec. 26.—L. V. MORRIS and J. T. NICHOLS.

Hempstead Reservoir, L. I., N. Y. (and vicinity).—Dec. 26; 8 A.M. to 1.30 P.M. Partly cloudy with heavy mist, clear by afternoon, ground bare; wind southwest, medium; temp. 38° at 8 A.M. Distance walked, 4 to 5 miles. Observers together. Great Black-backed Gull, 10; Herring Gull, 5,000+; Killdeer, 3; Marsh Hawk, 1; Red-shouldered Hawk, 1; Downy Woodpecker, 1; Horned Lark, 10; Blue Jay, 6; American Crow, 38; Starling, 31; Meadowlark, 24; American Goldfinch, 5; White-throated Sparrow, 4; Tree Sparrow, 16; Song Sparrow, 20; Swamp Sparrow, 2; Towhee, 1 (female); Brown Creeper, 2; Chickadee, 3; Golden-crowned Kinglet, 5; Hermit Thrush, 1; Robin, 3. Total, 22 species, 5,187 individuals.—CHARLES R. WEINBERGER and STANLEY MCKINNEY.

Long Beach, L. I., N. Y.—Dec. 23; 9 A.M. to 3 P.M. Cloudy to light rain; wind brisk, southwest; temp. 38°. Holboell's Grebe, 3; Horned Grebe, 9; Loon, 2; Great Black-backed Gull, 42; Herring Gull, 600 (est.); Ring-billed Gull, 12; Bonaparte's Gull, 16; Black Duck, 2,000 (est.); Scaup Duck, 32; Old-squaw, 4; American Scoter, 2; White-winged Scoter, 52; Surf Scoter, 6; Rough-legged Hawk, 1; Crow, 26; Horned Lark, 21; Starling, 150; Meadowlark, 3; Snow Bunting, 26; Lapland Longspur, 4; Ipswich Sparrow, 1; Song Sparrow, 1. Also flock of about 2,000 Ducks too far out for certain identification, but apparently largely Scoters. Total, 22 species, about 5,013 individuals. On the following day in Bronx Park I saw a Catbird, and 16 other species not seen at Long Beach, making a total of 39 species in the New York region in two days.—CLIFFORD PANGBURN.

Long Beach, L. I., N. Y.—Dec. 25; 10 A.M. to 5 P.M. Clear to hazy; ground bare; light east wind; temp. 35° to 40°. Thirteen miles on foot. Observers together. Holboell's Grebe, 2; Horned Grebe, 9; Loon, 1; Red-throated Loon, 1; Great Black-backed Gull, 9; Herring Gull, 1,000; Black Duck, 7; Bufflehead, 1; Old-squaw, 22; American Scoter, 1 (seen in inland salt creek); Horned Lark, 18; Crow, 7; Starling, 200 (2 flocks); Meadowlark, 7; Ipswich Sparrow, 1; Sharp-tailed Sparrow, 1. Total, 16 species, 1,287 individuals. FRANK and ROBERT MATHEWS.

Orient, L. I., N. Y.—Dec. 23; 6 A.M. to 6 P.M. Partly cloudy; ground bare; thawing; wind fresh northwest, becoming light; temp. 29° at start, 36° at midday, 30° at return. On foot

all day and thoroughly covering station. Horned Grebe, 16; Loon, 22; Red-throated Loon, 1; Great Black-backed Gull, 4; Herring Gull, 175; Red-breasted Merganser, 4; Mallard, 3; Black Duck, 60; Greater Scaup Duck, 250; Golden-eye, 20; Bufflehead, 35; Old-squaw, 300; White-winged Scoter, 400; Surf Scoter, 500; Canada Goose, 125; Clapper Rail, 1; Marsh Hawk, 1; Sharp-shinned Hawk, 1; Cooper's Hawk, 1; Red-tailed Hawk, 2; Sparrow Hawk, 2; Screech Owl, 3; Kingfisher, 1; Downy Woodpecker, 1; Flicker, 7; Horned Lark, 500; Crow, 65; Starling, 300; Red-winged Blackbird, 1; Meadowlark, 11; Pine Siskin, 5; Goldfinch, 2; Snow Bunting, 2; White-throated Sparrow, 2; Tree Sparrow, 250; Field Sparrow, 2; Junco, 1; Song Sparrow, 65; Swamp Sparrow, 8; Fox Sparrow, 2; Myrtle Warbler, 3; Winter Wren, 2; Chickadee, 6; Golden-crowned Kinglet, 3; Robin, 3. Total, 45 species, 3,168 individuals. English Sparrow, 200.—ROY LATHAM.

Mastic, L. I., N. Y.—Dec. 23; 11.15 A.M. to 4 P.M. Cloudy; wind west, moderate, variable; ground bare, a little ice in lower courses of creeks; temp. about 36°. About 11 miles along Long Island Railroad (Blue Point to Mastic, from train); about 3 miles on foot through pitch pine and oak woodland to farm buildings and open cultivated land, skirting creeks but stopping short of marsh and bay. Observers together. Herring Gull, 15; Ring-necked Duck, 1; Golden-eye Duck, 2; Great Blue Heron, 3; Great Horned Owl, 1 (calling at mid-day); Kingfisher, 1; Downy Woodpecker, 2; Blue Jay, 5; American Crow, 25; Starling, 20; Meadowlark, 2; Pine Siskin, 3; Junco, 30; Song Sparrow, 2; Myrtle Warbler, 20; Brown Creeper, 3; Chickadee, 20; Golden-crowned Kinglet, 18; Hermit Thrush, 1. Total, 19 species, 174 individuals. Also House Sparrow, 10. The Ring-necked Duck was a bright drake on the water with two female (plumaged) Golden-eyes. Its bill was tipped with blackish, basal half slate-blue, with a broad, contrasted pale band behind the tip; flanks slate-grey becoming whiter near the dark breast.—W. F. and J. T. NICHOLS.

Montauk to Montauk Point, L. I., N. Y.—Dec. 24; daylight until dark. Fair, foggy in early A.M., a little hazy most of the day, but visibility excellent; all ponds partially open; wind southwest, very light; temp. 32°–40°–35°. Observers together, except for half an hour at daylight. Horned Grebe, 15; Loon, 100; Dovekie 1 (in the surf, stained with oil and helpless); Iceland Gull, 1; Great Black-backed Gull, 10; Herring Gull, 500; Bonaparte's Gull, 8 (flock); Double-crested Cormorant, 1 imm. (very tame bird sitting on a rock just off-shore and positively identified); American Merganser, 6; Red-breasted Merganser, 25; Black Duck, 6; Scaup sp., 1; Golden-eye, 75; Old-squaw, 500; American Scoter, 15; White-winged Scoter, 25,000 (est.); Surf Scoter, 25,000 (est.); Ruddy Duck, 2; Canada Goose, 400; Coot, 3; Wilson's Snipe, 1; Killdeer, 1; Marsh Hawk, 1; Downy Woodpecker, 1; Flicker, 5; Horned Lark, 15; Crow, 20; Starling, 13; Meadowlark, 9; Purple Finch, 2; Goldfinch, 1; Pine Siskin, 35 (2 flocks); Snowflake, 4; Ipswich Sparrow, 1; Tree Sparrow, 20; Song Sparrow, 4; Fox Sparrow, 2; Northern Shrike, 1; Cedar Waxwing, 6; Myrtle Warbler, 50; Chickadee, 10. Total, 41 species, 51,886 individuals. A flock of Scoters, 1½ miles long and often 400 yards wide, off Montauk Point, is the greatest flock of Ducks I ever saw in the northeast. The estimate of 50,000 birds is ridiculously inadequate, and cannot convey an impression of the densely packed multitudes observed.—RUDYERD BOULTON and LUDLOW GRISCOM.

St. James, L. I., N. Y.—Dec. 23; 10 A.M. to 1.30 P.M. Clear to overcast, with slight fog on water; ground bare; no wind; temp. 35° at start, 42° at return. Observations from horse-back, and then, for Ducks, from cliffs, with telescope. Horned Grebe, 2; Great Black-backed Gull, 1; Herring Gull, 500; Mallard, 25; Black Duck, 700; Scaup, 100; American Golden-eye, 30; Old-squaw, 15; White-winged Scoter, 400; Red-tailed Hawk, 2; Downy Woodpecker, 1; Flicker, 2; Phoebe (?), 1; Blue Jay, 2; Crow, 300; Goldfinch, 5; Tree Sparrow, 2; Song Sparrow, 1; Junco, 20; Myrtle Warbler, 4; Chickadee, 3; Robin, 20. Total, 22 species, 2,136 individuals. 6 Red-breasted Mergansers, a covey of 12 Bob-white, 1 Sapsucker, and 8 Bluebirds seen 10 days ago.—JAMES W. LANE, JR.

Cape May, N. J.—Dec. 24; 9.45 A.M. to 5 P.M. Clear; wind east, light; temp. 38° to 50°. Horned Grebe, 4; Pied-billed Grebe, 1; Loon, 1; Red-throated Loon, 2; Herring Gull, 20;

Ring-billed Gull, 1; Bonaparte's Gull, 4; Red-breasted Merganser, 1; Bufflehead, 3; Oldsquaw, 5; Scoter, 6 (2 dead on the beach "oiled"); White-winged Scoter, 8; Surf Scoter, 8; Mourning Dove, 1; Marsh Hawk, 1; Red-shouldered Hawk, 1; Sparrow Hawk, 3; Kingfisher, 1; Red-headed Woodpecker, 1; Horned Lark, 3; Crow, 25; Starling, 50; Meadowlark, 10; Goldfinch, 4; Pine Siskin, 50; Savannah Sparrow, 20; Ipswich Sparrow, 1; Sharp-tailed Sparrow, 3; White-throated Sparrow, 8; Tree Sparrow, 20; Chipping Sparrow, 1 (a very close view obtained); Junco, 20; Song Sparrow, 3; Fox Sparrow, 3; Towhee, 6; Cardinal, 2; Myrtle Warbler, 34; Pipit, 2; Carolina Wren, 1; Long-billed Marsh Wren, 3; Carolina Chickadee, 2; Hermit Thrush, 1; Bluebird, 1. Total, 43 species, 345 individuals.—JULIAN K. POTTER.

Elizabeth, N. J. (between shores of Newark Bay and Milburn).—Dec. 24; 6.45 A.M. to 5.15 P.M. Clear; little wind; snow patches; temp. 30° at start, very mild at midday; 38° at return. Insects, both flying and crawling, unusually abundant for season. About 16 miles on foot. Herring Gull, 325; Ring-billed Gull, 4 (seen at close range on flat with Herring Gulls); Bonaparte's Gull, 130; Black Duck, 3; Ring-necked Pheasant, 1; Marsh Hawk, 2; Accipiter (medium size, sp.?), 1; Red-shouldered Hawk, 3; Sparrow Hawk, 1; Long-eared Owl, 1; Short-eared Owl, 3; Barred Owl, 1; Hairy Woodpecker, 1; Downy Woodpecker, 5; Horned Lark, 75; Blue Jay, 37; American Crow, 16; Starling, 205; Meadowlark, 30; Purple Finch, 46; Goldfinch, 12; Pine Siskin, 7; Snow Bunting, 15; Savannah Sparrow, 2 (approached closely on open salt marsh, median crown line of white, light yellowish superciliary line, characteristic 'chip' and other plumage characteristics noted); White-throated Sparrow, 12; Tree Sparrow, 82; Field Sparrow, 2 (together); Slate-colored Junco, 92; Song Sparrow, 76; Swamp Sparrow, 3; Fox Sparrow, 4 (together); Cardinal, 3; Myrtle Warbler, 2; Winter Wren, 1; Brown Creeper, 2; White-breasted Nuthatch, 5; Tufted Titmouse, 4; Black-capped Chickadee, 7; Golden-crowned Kinglet, 11. Total, 39 species, about 1,300 individuals. Call of Night Heron heard on salt marsh after dark but bird not seen. Full song from one Song Sparrow; several White-throats singing; male Marsh Hawk calling long rolling 'Flicker' call repeatedly (never before heard by writer in winter); 2 Short-eared Owls calling; many other species noisier than usual in December.—CHARLES A. URNER.

Moorestown, N. J.—Dec. 24, 8 A.M. to 12.30 P.M. Foggy until after 9 A.M.; ground bare; no wind; temperature 30° at start, 40° at return. Visited various localities by automobile within 5 miles radius of Moorestown; about 5 miles on foot. Observers together. Marsh Hawk, 1; Hawk (large), 1; Sparrow Hawk, 1; Downy Woodpecker, 12; Blue Jay, 4; Crow, 108; Starling, 75; Meadowlark, 1; Goldfinch, 6; White-throated Sparrow, 66; Tree Sparrow, 1; Field Sparrow, 2; Junco, 150; Fox Sparrow, 1; Song Sparrow, 40; Cardinal, 9; White-breasted Nuthatch, 1; Tufted Titmouse, 2; Black-capped Chickadee, 9; Golden-crowned Kinglet, 3; Robin, 3. Total, 21 species, 496 individuals. On Dec. 25 observed in the same locality Herring Gull, 1; Brown Creeper, 1.—M. ALBERT LINTON and ALFRED C. BORTON.

Morristown, N. J. (Lake Road and Speedwell Park to Evergreen Cemetery and Monroe). Dec. 24; 7.30 to 11 A.M. and 1 to 4 P.M. Overcast; 1 in. of crusted snow, with considerable bare ground; wind southwest to northwest, very light; temp. 26° to 38°. About 10 miles on foot. Red-shouldered Hawk, 2; Kingfisher, 1; Hairy Woodpecker, 5; Downy Woodpecker, 6; Blue Jay, 71; Crow, 37; Starling, 123; Purple Finch, 7 (in song); Goldfinch, 15; White-throated Sparrow, 8; Tree Sparrow, 67; Field Sparrow, 1; Junco, 116; Song Sparrow, 42 (in song); Winter Wren, 5; Brown Creeper, 8; White-breasted Nuthatch, 16; Chickadee, 21; Golden-crowned Kinglet, 8; Robin, 3 (together); Bluebird, 1. Total, 21 species, about 563 individuals.—R. C. CASKEY (accompanied by MRS. CASKEY in A.M.)

Mount Holly, N. J.—Dec. 24; 7.30 A.M. to noon, 1.30 to 4.30 P.M. Very foggy, cleared about 10.30, ground bare; wind north, light; temp. at start 30°, return 35°. Walked Lumberton to Hainesport and followed the Rancocas Creek for about six miles. Black Duck, 1; Killdeer, 3; Red-tailed Hawk, 2; Downy Woodpecker, 4; Flicker, 1; Blue Jay, 4; Crow (roost), 15,000; Starling, 25; Goldfinch, 2; Pine Siskin, 3; White-throated Sparrow, 10; Tree Sparrow, 7; Junco, 50; Song Sparrow, 3; Cardinal, 8; Brown Creeper, 5; Carolina Chickadee, 4; Golden-

crowned Kinglet, 6; Robin, 1; Bluebird, 10. Total, 20 species, 15,149 individuals. Hairy Woodpecker, Dec. 23; White-breasted Nuthatch, Dec. 26.—NELSON DEW. PUMYEA.

Newark, N. J.—Dec. 23; 9.30 A.M. to 12.30 P.M. Branch Brook Park, 1.30 to 3.30 P.M. Along canal and small streams, also across open country mostly in Bloomfield and Belleville, N. J. Very cloudy to heavy rain in P.M.; patches of old snow on ground; temp. 32° to 36°. About 10 miles on foot (rescued by a passing 'flivver', after rain became heavy). Herring (?) Gull, 1; Sparrow Hawk, 1; Blue Jay, 4; Crow, 2; Starling, 25; White-throated Sparrow, 15; Tree Sparrow, 2; Slate-colored Junco, 7; Song Sparrow, 3; Fox Sparrow, 2; Brown Creeper, 3; Golden-crowned Kinglet, 7. Total, 12 species, 72 individuals.—R. F. HAULENBEEK.

New Brunswick, N. J.—Dec. 24; 8.45 A.M. to 3 P.M., and 3.30 to 4.45 P.M. Mist early in A.M., freezing on the trees, but thawing later; sky slightly overcast; ground nearly bare; very slight northwest wind; temp. 29° to 36°. Herring Gull, 67; Ring-billed Gull, 7; Killdeer, 1; Pheasant, 1; Marsh Hawk, 1; Red-tailed Hawk, 2; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Kingfisher, 2; Hairy Woodpecker, 2; Downy Woodpecker, 8; Blue Jay, 29; Crow, 48; Starling, 68; Meadowlark, 46 (2 flocks); Purple Finch, 5; Goldfinch, 4; White-throated Sparrow, 28; Tree Sparrow, 99; Junco, 80; Song Sparrow, 61; Swamp Sparrow, 1; Cardinal, 1; Winter Wren, 1; Brown Creeper, 9; White-breasted Nuthatch, 2; Tufted Titmouse, 10; Chickadee, 6; Carolina Chickadee, 2; Golden-crowned Kinglet, 9; Robin, 3. Total, 31 species, 604 individuals.—STUART T. DANFORTH.

Northvale, N. J. (to Sneden's Landing, N. Y.)—Dec. 25; 10.45 A.M. to 4.15 P.M. Weather fine; wind east, very light; ground mostly bare; temp. 45° to 50°. Herring Gull, 10; American Merganser, 5; Scaup Duck, 30; Red-tailed Hawk, 2; Downy Woodpecker, 4; Blue Jay, 2; Crow, 6; Starling, 27; Goldfinch, 4; Pine Siskin, 35; White-throated Sparrow, 23; Tree Sparrow, 20; Junco, 12; Song Sparrow, 1; Winter Wren, 1; Chickadee, 8; White-breasted Nuthatch, 1; Hermit Thrush, 1; Robin, 2. Total, 19 species, 194 individuals.—MR. and MRS. STANLEY V. LA DOW.

Boonton, N. J. (and immediate vicinity)—Dec. 27; 9 A.M. to 12.30 P.M. and 3 to 4.30 P.M. Clear in A.M., overcast in P.M.; ground bare, with patches of old ice; no wind; temp. 40° to 48° to 44°. About 10 miles on foot. Belted Kingfisher, 1; Hairy Woodpecker, 1; Downy Woodpecker, 5; Blue Jay, 5; Crow, 10; Goldfinch, 8; Tree Sparrow, 4; Junco, 25; Song Sparrow, 2; Brown Creeper, 1; White-breasted Nuthatch, 4; Chickadee, 11; Bluebird, 6. Total, 13 species, about 83 individuals.—F. HALSTED SILLICK, JR.

Plainfield, N. J. (to Ash Swamp and back)—Dec. 24; 10 A.M. to 6 P.M. Fair; some light snow on ground in woods; little wind; mild. Ring-necked Pheasant, 1; Red-tailed Hawk, 1; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Barred Owl, 1; Hairy Woodpecker, 1; Downy Woodpecker, 12; Flicker, 2; Blue Jay, 18; American Crow, 6; Starling, 75; Purple Finch, 10; Goldfinch, 8 (flock); Pine Siskin, 2; White-throated Sparrow, 15; Tree Sparrow, 85; Field Sparrow, 3 (flock); Junco, 35; Song Sparrow, 10; Swamp Sparrow, 2; Fox Sparrow, 1; Cardinal, 1; Myrtle Warbler, 3; Winter Wren, 1; Brown Creeper, 2; White-breasted Nuthatch, 7; Tufted Titmouse, 2; Black-capped Chickadee, 4; Golden-crowned Kinglet, 13; Hermit Thrush, 1; Robin, 1. Total, 31 species, 325 individuals.—W. DEW. MILLER.

Princeton, N. J. (to Port Mercer and Mount Rose and back)—Dec. 23; 7.15 A.M. to 5.15 P.M. Cloudy (light snow and rain 12 to 2.30 P.M.); ground mostly bare; brooks frozen; wind southwest, light; temp. 36° at 1.30 P.M. Fifteen miles on foot; valley of Stony Brook and red cedar groves. American Merganser, 7 (flock); Mourning Dove, 75 (flock); Marsh Hawk, 1; Red-tailed Hawk, 1; Red-shouldered Hawk, 3; Sparrow Hawk, 2; Long-eared Owl, 1; Saw-whet Owl, (fresh remains of) 1; Hairy Woodpecker, 2; Downy Woodpecker, 10; Red-headed Woodpecker, 1; Flicker, 4; Blue Jay, 5; American Crow, 1,000; Fish Crow, at least 5; Starling, 175; Meadowlark, 2; Purple Finch, 7; Goldfinch, 70 (flock of 65); White-throated Sparrow, 13; Tree Sparrow, 50; Junco, 200; Song Sparrow, 30; Swamp Sparrow, 3; Fox Sparrow, 1; Cardinal, 11; Myrtle Warbler, 1; Winter Wren, 2; Brown Creeper, 10; White-breasted Nuthatch, 7; Tufted Tit, 16; Carolina Chickadee, 3; Golden-

crowned Kinglet, 4. Total, 32 species, about 1,730 individuals (+House Sparrow, 81). Though so few today, Golden-crowned Kinglets have been remarkably common these three months; Goldfinches, Juncos, and Creepers have also seemed more than usually common. Towhee (male), 1, Dec. 16; Screech Owl, 1, Dec. 20; Bluebird, 3, Dec. 24.—CHARLES H. ROGERS.

Upper Montclair, N. J., and adjacent region (touching Brookdale, Great Notch, Little Falls, West Paterson, Richfield).—Dec. 23; 7.15 A.M. to 4.15 P.M. Overcast; ground sparsely covered with snow; snow flurries at noon, followed by an occasional drizzle; wind, southwest, light to brisk to light; temp. 32° at start, 35° at return. About 13 miles. Red-shouldered Hawk, 1; Downy Woodpecker, 4; Blue Jay, 19; Crow, 22; Starling, 47; Redpoll, 3; Goldfinch, 19; Pine Siskin, about 23; White-throated Sparrow, 21; Tree Sparrow, about 87; Field (?) Sparrow, 1; Junco, 58; Song Sparrow, 12; Towhee, 1; Myrtle Warbler, 1; Winter Wren, 3; Brown Creeper, 3; White-breasted Nuthatch, 5; Golden-crowned Kinglet, 2. Total, 19 species, about 332 individuals. R. H. HOWLAND with ROBERT BARBOUR, MRS. CHARLES S. HEGEMAN, MISS L. N. MORRIS, 9.45 A.M. to 12.15 P.M.; RENNELSON HOWLAND from 2.30 P.M.

Chambersburg, Pa.—Dec. 24; 2 to 5.30 P.M. Fair; 3-in. snow; temp. 48°. Observers together, 6 miles along stream in farming country. Bob-white (1 covey), 6; Downy Woodpecker, 4; Crow, 500; Starling, 4; Cowbird, 1; Goldfinch, 1; Tree Sparrow, 50; Junco, 70; Song Sparrow, 4; Cardinal, 7; Winter Wren, 2; White-breasted Nuthatch, 3; Chickadee, 3; Golden-crowned Kinglet, 2. Total, 14 species, 653 individuals. This is the third winter that Cowbirds have stayed with us.—BENJAMIN AND ROBERT WARFIELD.

Glen Olden, Pa. (railroad station to Darby Creek and vicinity).—Dec. 24; 8.45 A.M. to 1 P.M. and 2 to 4.30 P.M. Partly cloudy; light west wind; temp. 35° to 40°. Red-tailed Hawk, 5; Downy Woodpecker, 2; Crow, 10; Starling, 250 (flock); Meadowlark, 9 (flock); Purple Finch, 2; Goldfinch, 3; White-throated Sparrow, 43; Tree Sparrow, 15; Junco, 8; Song Sparrow, 9 (one in song); Fox Sparrow, 3; Cardinal, 7; Carolina Wren, 3; Winter Wren, 2; Brown Creeper, 4; Golden-crowned Kinglet, 8; Robin, 2. Total, 18 species, 385 individuals. Hairy Woodpecker and Screech Owl observed on Dec. 23.—JOHN A. GILLESPIE.

Grove City, Pa.—Dec. 26; 8 A.M. to 3.30 P.M. Very sunny, a strong, clear light; 1 in. of snow, melting rapidly; roads bare; no wind noticeable; 34° at start, 52° at return. Twelve miles on foot. Observers together in the morning, separated in the afternoon. Bob-white, 20; Ring-necked Pheasant, 2; Red-tailed Hawk, 1; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Kingfisher, 1; Hairy Woodpecker, 2; Downy Woodpecker, 8; Flicker, 8; Blue Jay, 10; Crow, 16; Pine Grosbeak, 1; Pine Siskin, 25; Tree Sparrow, 60; Slate-colored Junco, 20; Song Sparrow, 3; Cardinal, 3; Winter Wren, 1; Brown Creeper, 1; White-breasted Nuthatch, 1; Tufted Titmouse, 8; Black-capped Chickadee, 40; Golden-crowned Kinglet, 20; Robin, 1; Bluebird, 1. Total, 25 species, 255 individuals. A Barred Owl seen the day previous. Pine Grosbeak studied in the full glare of the sun with a 6 X glass at an approximate distance of 12 feet. Rosy breast noted, the absence of a crossed beak, and the white wing-bars. Also noticed the characteristic call-note. Was observed with a company of Pine Siskins feeding in a hemlock on cones. Observers together in the morning: JOHN HOFFMAN, F. C. JONES, and NEVIN NICHOLSON. Observers separated in the afternoon: WILLIAM THOMPSON, HERMAN VON ENDE, BAILEY BARNES, and NEVIN NICHOLSON.

Haverford, to Aronimink, Pa. (along Darby Creek).—Dec. 27; 11.30 A.M. to 5 P.M. Foggy; ground bare; no wind; temp. 39° at start, 43° at return. Seven miles on foot. Observers together. Red-tailed Hawk, 1; Barn Owl, 1; Screech Owl, 1; Belted Kingfisher, 1; Downy Woodpecker, 5; Flicker, 1; Crow, 200; Starling, 100; Goldfinch, 3; Pine Siskin, 25 (1 flock); White-throated Sparrow, 20; Tree Sparrow, 2; Junco, 20; Song Sparrow, 30; Cardinal, 8; Catbird [? Ed.], 1; Winter Wren, 2; Brown Creeper, 1; Tufted Titmouse, 1; Golden-crowned Kinglet, 4; Bluebird, 2. Total, 21 species, 429 individuals. Two White-throated Sparrows were heard in song.—GURDON T. SCOVILLE and HENRY H. COLLINS III.

Lititz, Pa. (northern Lancaster Co.; valley of the Hammer Creek).—Dec. 26; 8 A.M. to 5.30 P.M. Heavy fog till noon; ground partly covered with snow; wind none; temp. 34° to 38°. Observers in two parties until 1 P.M.; combined routes about 28 miles. Bob-white, 28 (4 coveys); Ruffed Grouse, 3; Ring-necked Pheasant, 2; Mourning Dove, 3; Turkey Vulture, 1; Red-tailed Hawk, 2; Broad-winged [? Ed.] Hawk, 1; Sparrow Hawk, 1; Screech Owl, 1; Belted Kingfisher, 1; Hairy Woodpecker, 1; Downy Woodpecker, 10; Flicker, 1; Blue Jay, 2; Crow, 150; Starling, 40; Meadowlark, 3; Purple Finch, 9; Goldfinch, 65; Tree Sparrow, 135; Slate-colored Junco, 340; Song Sparrow, 26; Cardinal, 17; White-breasted Nuthatch, 6; Tufted Titmouse, 2; Chickadee, 5; Golden-crowned Kinglet, 1; Robin, 2. Total, 28 species, about 900 individuals. Dec. 24, Redpoll, 30.—HERBERT H. BECK, ABRAHAM B. MILLER, J. H. SHAY, CLIFFORD MARBURGER, REBA NEIL, and bird-dog.

McKeesport, Pa.—Dec. 24; 9 A.M. to 5 P.M. Cloudy; wind southwest; temp. 35°. Locality, Snake Hollow, Jacks Run, Long Run and Lincoln Highway. Twenty-three miles on foot. Cooper's Hawk, 1; Downy Woodpecker, 3; Flicker, 2; Prairie Horned Lark, 12; American Crow, 7; Tree Sparrow, 11; Slate-colored Junco, 30; Song Sparrow, 13; Cardinal, 31; Carolina Wren, 3; Brown Creeper, 1; Tufted Titmouse, 5; Black-capped Chickadee, 18; Robin, 12. Total, 14 species, 149 individuals. Carolina Wren singing; absence of White-breasted Nuthatch, American Goldfinch, and Sparrow Hawk noted; also abundance of Robins.—L. F. SAVAGE.

Monaca, Pa. (to mouth of Raccoon Creek, via Bellowsville, and return).—Dec. 23; 10.30 A.M. to 6 P.M. Clear until mid-afternoon; 1-in. snow, melting; wind, west, light; temp. 42° at start, growing warmer at noon, 37° at return. Fourteen miles on foot. Observers together. American Merganser, 3; Bob-white, 60 (3 coveys); Ruffed Grouse, 4; Mourning Dove, 1; Sharp-shinned Hawk, 1; Red-tailed Hawk, 3; Sparrow Hawk, 1; Hairy Woodpecker, 8; Downy Woodpecker, 13; Crow, 1; Purple Finch, 1 (possibly more); Tree Sparrow, 89; Slate colored Junco, 78; Song Sparrow, 17; Cardinal, 18; Carolina Wren, 3; Brown Creeper, 7; White-breasted Nuthatch, 9; Tufted Titmouse, 16; Chickadee, 28; Golden-crowned Kinglet, 15. Total, 21 species, 376 individuals. The Mourning Dove has wintered at a sheltered farmhouse near Raccoon Creek.—GEORGE M. SUTTON, WILLIAM W. GILLESPIE, and RAMON LITHGOW.

Morrisville, Pa. (Delaware and Easton canal, and along Delaware River opposite Trenton, N. J.).—10.30 A.M. to 12.30 P.M. Ground bare; heavy fog; light northwest breeze; temp. 40°. Gull, 4; Kingfisher, 1; Downy Woodpecker, 7; Flicker, 1; Blue Jay, 2; American Crow, 7; Starling, 5; White-throated Sparrow, 50; Tree Sparrow, 40; Junco, 125; Song Sparrow, 30; Cardinal, 3; Carolina Wren, 2; Winter Wren, 3 (1 singing); Brown Creeper, 6; Golden-crowned Kinglet, 1. Total, 165 species, 297 individuals.—W. L. DIX.

Newton (Bucks Co.), Pa. (Neshaminy Creek).—Dec. 26; 8 A.M. to 2 P.M. Cloudy in morning, clearing about noon; bare ground; calm; temp. 40° at start, 47° at return. Eleven miles on foot. Observers together. Killdeer, 1; Mourning Dove, 2; Red-tailed Hawk, 1; Sparrow Hawk, 1; Belted Kingfisher, 1; Hairy Woodpecker, 1; Downy Woodpecker, 16; Flicker, 8; Blue Jay, 1; Crow 115 (est.); Starling, 191 (est.); Goldfinch, 8; White-throated Sparrow, 2; Tree Sparrow, 32; Slate-colored Junco, 66; Song Sparrow, 17; American Pipit, 30 (2 flocks of 8 and 22, respectively); Winter Wren, 6; Brown Creeper, 10; White-breasted Nuthatch, 13; Tufted Titmouse, 25; Golden-crowned Kinglet, 10; Ruby-crowned Kinglet, 1; Bluebird, 2. Total, 24 species, about 560 individuals.—RUSSELL and WILLIAM E. RICHARDSON.

Oakmont to Eagle (Delaware Co.) Pa.—Dec. 26; 10 A.M. to 4.30 P.M. Temp. 38°. About 10 miles on foot. Observers together. Red-tailed Hawk, 1; Belted Kingfisher, 1; Hairy Woodpecker, 2; Downy Woodpecker, 1; Crow, 20; Starling, 50+; Purple Grackle, 1; Goldfinch, 50+; White-throated Sparrow, 20+; Tree Sparrow, 15+; Slate-colored Junco, 100+; Song Sparrow, 50+; Fox Sparrow, 5; Towhee, 4; Cardinal, 10; Carolina Wren, 2; Winter Wren, 1; White-breasted Nuthatch, 6; Golden-crowned Kinglet, 10. Total, 20 species, 349+ individuals. The Towhee was seen at a distance of about 15 feet with a pair of 8-power glasses. There were 3 males and 1 female.—WILLIAM H. YODER, JR., and HENRY GALDE.

Pittsburgh, Pa. (Deer Creek region).—Dec. 24; 9 A.M. to 4 P.M. Cloudy, clearing in the afternoon; ground nearly bare; no wind; temp. 36° at start, 36° at return. Ten miles on foot. Observers together most of the day. Killdeer, 1; Ruffed Grouse, 6; Red-tailed Hawk, 1; Sparrow Hawk, 4; Screech Owl, 2; Hairy Woodpecker, 1; Downy Woodpecker, 22; Red-bellied Woodpecker, 1; Flicker, 1; Crow, 10; Goldfinch, 1; Pine Siskin, 12; Tree Sparrow, 115; Junco, 73; Song Sparrow, 15; Cardinal, 13; Brown Creeper, 3; White-breasted Nuthatch, 7; Tufted Titmouse, 25; Chickadee, 12; Golden-crowned Kinglet, 6. Total, 21 species, about 331 individuals.—JESSE L. JONES, H. H. ELLIOTT, and P. F. SEIBOLD.

Reading, Pa. (12 miles radius).—Dec. 24. Clear, wind light, northwest; ground mostly bare, ½ in. of snow in places; temp. 25° at start, 42° at finish. Ruffed Grouse, 3; Bob-white, 7; Marsh Hawk, 1; Cooper's Hawk, 1; Red-tailed Hawk, 4; Red-shouldered Hawk, 1; Sparrow Hawk, 9; Kingfisher, 6; Hairy Woodpecker, 8; Downy Woodpecker, 31; Flicker, 2; Horned Lark, 1 flock. Blue Jay, 8; Crow, 788; Starling, 182; Meadowlark, 8; Purple Finch, 24; Goldfinch, 33; White-throated Sparrow, 10; Tree Sparrow, 260; Junco, 325; Song Sparrow, 94; Swamp Sparrow, 1; Cardinal, 11; Cedarbird, 1 flock; Carolina Wren, 1; Winter Wren, 7; Brown Creeper, 18; White-breasted Nuthatch, 12; Tufted Titmouse, 1; Chickadee, 12; Golden-crowned Kinglet, 96; Hermit Thrush, 3; Robin, 5; Bluebird, 28. Total, 35 species, 1,926 individuals. [Catbird, 2; also listed, Nunemacher and Stott, no corroborative details given.—Ed.].—MR. and MRS. G. H. MENGEL; MISSES ANNA P. DEETER, MARY E. DEETER and FLORENCE HERGESHEIMER; BYRON NUNEMACHER and CALVIN STOTT; EARL L. POOLE and HAROLD MORRIS (Baird Ornithological Club, four independent groups).

Sewickley, Pa.—Dec. 24; 7.45 A.M. to 1 P.M. Sky overcast; light west winds; temp. 37°. Fourteen miles covered. Observers together. Territory—Little and Big Sewickley Creeks. Ruffed Grouse, 9; Cooper's Hawk, 1; Hairy Woodpecker, 2; Downy Woodpecker, 13; American Crow, 4; Goldfinch, 1; Pine Siskins 75; Tree Sparrow, 28; Slate-colored Junco, 41; Song Sparrow, 8; Cardinal, 30; Winter Wren, 2; Brown Creeper, 4; White-breasted Nuthatch, 5; Tufted Titmouse, 32; Chickadee, 10; Golden-crowned Kinglet, 20; Robin (singing), 3; Total, 18 species, 288 individuals.—BAYARD H. CHRISTY and FRANK A. HEGNER.

Springs, Pa.—Dec. 26; 9.30 A.M. to 3 P.M. Clear; fields and open woods bare; some snow in deep woods; wind south, light; temp. 43° to 58°. Screech Owl, 1; Hairy Woodpecker, 2; Downy Woodpecker, 3; Prairie Horned Lark, 5; Goldfinch, 3; Slate-colored Junco, 10; White-breasted Nuthatch, 3; Tufted Titmouse, 2; Black-capped Chickadee, 5; Golden-crowned Kinglet, 3. Total, 10 species; 41 individuals.—ANSEL B. MILLER.

Telford, Pa. (and vicinity).—Dec. 24; 8 A.M. to 4.20 P.M. Clear; crusted snow in woods; wind south, light; temp. 29° at start, 39° at return. About 15 miles on foot. Quail, 11 (1 covey); Kingfisher, 2; Downy Woodpecker, 10; Flicker, 4; Crow, 68; Starling, 247; Goldfinch, 43; Tree Sparrow, 91; Junco, 318; Song Sparrow, 27; Fox Sparrow, 1; Pipit, 2; Winter Wren, 1; Brown Creeper, 1; White-breasted Nuthatch, 3; Golden-crowned Kinglet, 23. Total, 16 species, 852 individuals. I was afforded an excellent view of the Winter Wren and Fox Sparrow, as both were seen in the same clump of thickets along the creek.—CLAUDE A. BUTTERWICK.

West Chester, Pa. (and vicinity).—Dec. 24; 7.30 A.M. to 4 P.M. Clear; ground clear; temp. 30° at start, 40° at noon. Observers were in three distinct groups. Red-tailed Hawk, 1; Red-shouldered Hawk, 1; Broad-winged [? Ed.] Hawk, 2; Sparrow Hawk, 1; Screech Owl, 1; Hairy Woodpecker, 1; Downy Woodpecker, 10; Yellow-bellied Sapsucker, 1; Flicker, 2; Crow, 78; Starling, 181; Purple Finch, 4 (1 singing); Goldfinch, 2; Pine Siskin, 30; Tree Sparrow, 25 (singing); White-throated Sparrow, 2; Slate-colored Junco, 234; Song Sparrow, 38; Cardinal, 1; Carolina Wren, 1; Winter Wren, 1; Brown Creeper, 6; Golden-crowned Kinglet, 20; Bluebird, 2. Total, 24 species, 645 individuals.—C. EDWIN SMITH and five other members of The West Chester Bird Club.

White Marsh, Pa.—Dec. 24; 12 M. to 5 P.M. Partly cloudy; ground uncovered; wind northwest, light; temp. 45°. About 6 miles on foot. Hawk (not identified), 1; Sparrow Hawk,

2; Hairy Woodpecker, 2; Downy Woodpecker, 4; Flicker, 2; Crow, 5; Starling, 4; Goldfinch, 30 (est.); White-throated Sparrow, 4; Tree Sparrow, 40 (est.); Junco, 40 (est.); Song Sparrow, 7; Cardinal, 4; Carolina Wren, 1; Brown Creeper, 2; Tufted Titmouse, 4; Golden-crowned Kinglet, 10. Total, 17 species, about 162 individuals.—GEORGE LEAR.

Williamsport, Pa.—Dec. 23; 8 A.M. to 4 P.M. Cloudy; snowed from 9 A.M. until 2.30 P.M.; snow 6 in. deep; wind northeast and east; temp. 36° at start and 40° at return. About 15 miles on foot. Observers working together. American Merganser, 5; Black Duck, 12; Scaup Duck, 2; Duck, (?) 6; Bob-white, 8; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Hairy Woodpecker, 1; Downy Woodpecker, 8; Crow, 15; Starling, 24; Tree Sparrow, 247; Slate-colored Junco, 151; Song Sparrow, 5; Cardinal, 2 (male and female); Brown Creeper, 1; White-breasted Nuthatch, 8; Tufted Titmouse, 4; Chickadee, 3; Golden-crowned Kinglet, 6; Total, 20 species, 510 individuals.—J. B. RISHEL, ROBERT P. ALLEN and JOHN R. ALLEN.

Arden, Del.—Dec. 25; 8.30 A.M. to 6.15 P.M., with intermissions amounting to about two hours. Clear; ground bare; wind north, light; temp. 34° at start, 44° at 11.15 A.M. Eight miles on foot. Observers together. (?Red-tailed) Hawk, 2; Sparrow Hawk, 1; Hairy Woodpecker, 1; Downy Woodpecker, 6; Flicker, 1; Blue Jay, 4; Crow, 12; Starling, 2; Purple Finch, 1; Goldfinch, 1; Pine Siskin, 20 (in 1 flock, seen twice); White-throated Sparrow, 11; Junco, 38; Song Sparrow, 7; Cardinal, 2; White-breasted Nuthatch, 5; Tufted Titmouse, 1; Golden-crowned Kinglet, 5. Total, 18 species, 120 individuals. Robin heard the next morning.—GEORGE H. HALLETT, JR., and MARY SPENCER LEE.

Annapolis, Md. (to Arundel-on-the-Bay and return).—Dec. 24; 10.30 A.M. to 4 P.M. Clear; ground bare; wind light, east; temp. 45°. Eleven miles on foot. Horned Grebe, 12; Herring Gull, 20; Ring-billed Gull, 26; Bonaparte Gull, 3; Golden-eye, 19; Bufflehead, 7; Old-squaw, 14; Scoter, 8; Surf Scoter, 9; Killdeer, 1; Bob-white, 13; Turkey Vulture, 22; Sparrow Hawk, 1; Hairy Woodpecker, 1; Downy Woodpecker, 7; Flicker, 1; Blue Jay, 3; Crow, 13; Fish Crow, 13; Starling, 5; Red-winged Blackbird, 4; Meadowlark, 16; Purple Grackle, 1; Goldfinch, 3; Pine Siskin, 30; Snow Bunting, 1; White-throated Sparrow, 18; Tree Sparrow, 3; Field Sparrow, 1; Junco, 54; Song Sparrow, 25; Swamp Sparrow, 1; Cardinal, 1; Myrtle Warbler, 20; Mockingbird, 5; Carolina Wren, 2; Tufted Titmouse, 3; Carolina Chickadee, 4; Golden-crowned Kinglet, 4; Hermit Thrush, 3; Bluebird, 1. Total, 41 species, 396 individuals.—JOSEPH KITTREDGE, JR.

Chevy Chase, Md. (Section northeast of the village extending to Rock Creek and Chevy Chase Lake).—Dec. 25; 8 A.M. to 1 P.M. Clear; ground bare; no wind; temp. 32° at start, 44° at return. Seven miles on foot. Sharp-shinned Hawk, 1; Turkey Vulture, 12; Red-shouldered Hawk, 2; Downy Woodpecker, 19; Red-headed Woodpecker, 1; Red-bellied Woodpecker, 3; Flicker, 1; Blue Jay, 12; Crow, 112; Fish Crow, 18; Starling, 31 (3 flocks); Purple Finch, 4; Goldfinch, 17; White-throated Sparrow, 6; Tree Sparrow, 5; Junco, 115; Song Sparrow, 24; Swamp Sparrow, 2; Cardinal, 17; Migrant Shrike, 1; Mockingbird, 2; Carolina Wren, 2; Winter Wren, 2; White-breasted Nuthatch, 14; Tufted Titmouse, 12; Carolina Chickadee, 8; Golden-crowned Kinglet, 5; Bluebird, 12. Total, 28 species, about 464 individuals.—(DR.) S. W. MELLOTT.

Washington, D. C. (Dogue Creek, Mt. Vernon, Riverside, and Dyke, Va.).—Dec. 23; 8 A.M. to 5 P.M. Overcast forenoon, partly fair afternoon; ground bare; moderate southeast wind; temp. 27° at start, 52° at finish. Ten miles on foot. Observers together. Herring Gull, 5; Redhead, 500; Canvashack, 5,000; Scaup, 15,000; Golden-eye, 500; Killdeer, 15; Bob-white, 8; Mourning Dove, 6; Turkey Vulture, 14; Sharp-shinned Hawk, 1; Red-shouldered Hawk, 2; Bald Eagle, 2; Kingfisher, 1; Downy Woodpecker, 2; Yellow-bellied Woodpecker, 2; Flicker, 7; Blue Jay, 8; American Crow, 25; Starling, 40; Meadowlark, 18; Purple Grackle, 1; Purple Finch, 2; Goldfinch, 45; Pine Siskin, 4; White-throated Sparrow, 12; Tree Sparrow, 50; Field Sparrow, 4; Junco, 358; Song Sparrow, 8; Fox Sparrow, 2; Cardinal, 8; Migrant Shrike, 3; Myrtle Warbler, 7; Mockingbird, 5; Carolina Wren, 3; Brown Creeper, 2; White-breasted Nuthatch, 2; Tufted Tit, 6; Carolina Chickadee, 1; Golden-crowned Kinglet, 12; Bluebird,

20. Total, 41 species, 21,721 individuals. English Sparrow, 100. In addition, fresh bodies or parts of bodies of Bufflehead, King Rail, and Long-eared Owl were found.—W. L. McATEE, E. A. PREBLE, and A. WETMORE.

Berryville, Va.—Dec. 23; 8.30 A.M. to 12.30 P.M. Cloudy; snow in patches; no wind; temp. 28° to 35°. Killdeer, 1; Bob-white, 43; Turkey Vulture, 22; Marsh Hawk, 1; Sharp-shinned Hawk, 1; Red-shouldered Hawk, 2; Screech Owl, 1 (7.30 A.M.); Hairy Woodpecker, 1; Downy Woodpecker, 6; Flicker, 1; Horned Lark, 32; Crow, 47; Starling, 60; Goldfinch, 1; Tree Sparrow, 71; Slate-colored Junco, 18; Song Sparrow, 5; Cardinal, 17; Mockingbird, 2; Carolina Wren, 1; White-breasted Nuthatch, 7; Tufted Titmouse, 6; Black-capped Chickadee, 7; Bluebird, 4. Total, 24 species, 357 individuals.—JOSEPH P. JONES.

Lawrenceville Va. (vicinity).—Dec. 27; 9.35 A.M. to 1 P.M. Clear; no wind, temp. 33° at start, 55° at return. Bob-white, 12; Mourning Dove, 8; Turkey Buzzard, 12; Sparrow Hawk, 2; Downy Woodpecker, 2; Yellow-bellied Sapsucker, 1; Pileated Woodpecker, 2; Flicker, 4; Phoebe, 1; Crow, 16; Meadowlark, 22; Purple Finch, 2; Goldfinch, 5; Pine Finch, 60; White-throated Sparrow, 15; Junco, 45; Song Sparrow, 14; Cardinal, 5; Cedar Waxwing, 5; Loggerhead Shrike, 1; Myrtle Warbler, 10; Mockingbird, 2; Carolina Wren, 5; Winter Wren, 1; Brown Creeper, 1; White-bellied Nuthatch, 5; Tufted Titmouse, 9; Chickadee, 12; Golden-crowned Kinglet, 7; Hermit Thrush, 1; Robin, 1; Bluebird, 16. Total, 32 species, 301 individuals. These observations were made almost entirely within the bounds of my 80-acre farm; only two species noted being found outside its boundary. Several other species are constantly with us and have been seen within a day or two: Killdeer, Wild Turkey, Blue Jay, for instance. Pine Finches have been very abundant here since Nov. 15. On that day and several times shortly after that, I was out at 5 o'clock in the morning when the flight-calls of the Pine Finches were coming from all parts of the sky, indicating that large numbers were migrating in the night. At present large flocks are feeding among the seed-balls of the big sweet gums, and to a less extent in the pines.—JOHN B. LEWIS.

Lexington, Va.—Dec. 27; 8.30 A.M. to 2 P.M. Clear at start, overcast at finish; no wind; temp. 38° to 46°. Lexington to Buffalo Creek, 3 miles up Creek and return cross-country, 6 miles by auto, 8 miles on foot. Turkey Vulture, 17; Black Vulture, 5; Belted Kingfisher, 2; Hairy Woodpecker, 2; Downy Woodpecker, 4; Red-headed Woodpecker, 12; Flicker, 5; Crow, 15; Starling, 12 (first seen in this locality less than a year ago, becoming common); Meadowlark, 38; Purple Finch, 6; Goldfinch, 10; White-throated Sparrow, 2; Field Sparrow, 1; Junco, 8; Song Sparrow, 6; Cardinal, 2; Mockingbird, 1; Carolina Wren, 5; Winter Wren, 1; Chickadee, 15; Golden-crowned Kinglet, 15; Robin, 50; Bluebird, 4. Total, 24 species, about 240 individuals.—MERRIAM G. LEWIS.

Mt. Vernon, Va.—Dec. 27; 10.30 A.M. to 3 P.M. Cloudy; ground bare; wind northeast, light; temp. about 45°. Five miles on foot. Observers together. Herring Gull, 2; Killdeer, 1; Turkey Vulture, 3; Red-shouldered Hawk, 1; Downy Woodpecker, 6; Yellow-bellied Sapsucker, 1; Flicker, 4; Blue Jay, 12; Crow, 18; Fish Crow, 1; Meadowlark, 3; Purple Finch, 1; Goldfinch, 10; Pine Siskin, 30; White-throated Sparrow, 4; Junco, 54; Song Sparrow, 7; Cardinal, 7; Cedar Waxwing, 80; Myrtle Warbler, 2; Mockingbird, 8; Carolina Wren, 5; Brown Creeper, 1; White-breasted Nuthatch, 1; Tufted Titmouse, 9; Carolina Chickadee, 7; Golden-crowned Kinglet, 11; Robin, 17; Bluebird, 16. Total, 29 species, 322 individuals.—GRACE K. and OSBORNE EARLE.

Pulaski, Va.—Dec. 25; 1 to 5 P.M. Clear; light west wind; temp. 54° at start, 46° at return. Five miles on foot. Killdeer, 2; Mourning Dove, 44; Turkey Vulture, 38; Cooper's Hawk, 1; Sparrow Hawk, 1; Red-headed Woodpecker, 4; Red-bellied Woodpecker, 1; Horned Lark, 5; American Crow, 14; Cowbird, 9; Meadowlark, 32; American Goldfinch, 28; Field Sparrow, 3; Slate-colored Junco, 80; Song Sparrow, 12; Cardinal, 3; Mockingbird, 1; Tufted Titmouse, 5; Black-capped Chickadee, 3; Bluebird, 8. Total, 20 species, 294 individuals.—O. C. BREWER.

Charleston-on-Kanawha, W. Va.—Dec. 24; 9 A.M. to 1.45 P.M., 3 to 5 P.M. Very foggy; no clouds; ground frozen at 9 o'clock and covered with heavy white frost; light south wind;

temp. 28° to 52°. Observers together. Sparrow Hawk, 1; Quail, 9; Downy Woodpecker, 3; Red-headed Woodpecker, 10; Flicker, 4; Blue Jay, 16; Crow, 24; Goldfinch, 6; White-throated Sparrow, 10; Tree Sparrow, 1; Field Sparrow, 16; Slate-colored Junco, 147; Song Sparrow, 32; Towhee, 106; Cardinal, 42; Carolina Wren, 39; Winter Wren, 1; White-breasted Nuthatch, 7; Tufted Titmouse, 41; Black-capped Chickadee, 15; Robin, 1,000; Bluebird, 6. Total, 2 species, 1,536 individuals. About 200 Pine Siskins, Dec. 23.—JOSEPH COOKE, ORVILLE FRIEDMAN, RALPH YOUNG, W. H. MCGINNIS, MEREDITH and WALTER PURVIS (part of time), and I. H. JOHNSTON.

French Creek, W. Va. (Brooks farm and vicinity).—Dec. 25; 7.15 A.M. to 4 P.M. Clear; ground bare; wind south, light; temp. 45° at start, rising. Twelve miles on foot, observers working separately in pairs. Black Duck, 3; Bob-white, 8 (est. in 1 covey); Ruffed Grouse, 1; Mourning Dove, 1; Sharp-shinned Hawk, 1 (eating freshly killed Bob-white); Hairy Woodpecker, 4; Downy Woodpecker, 18; Yellow-bellied Sapsucker, 1; Red-headed Woodpecker, 2; Red-bellied Woodpecker, 5; Northern Flicker, 4; Crow 12 (scattered); Purple Finch, 40; Goldfinch, 32; Pine Siskin 57; Vesper Sparrow, 1; Tree Sparrow, 157; Field Sparrow, 40; Slate-colored Junco, 270; Song Sparrow, 20; Towhee, 14; Cardinal, 26; Carolina Wren, 33; Winter Wren, 2; White-breasted Nuthatch, 7; Tufted Titmouse, 51; Carolina Chickadee, 8; Golden-crowned Kinglet, 12; Robin, 360 (a few singing); Bluebird, 56. Total, 30 species, about 1,209 individuals.—FRED E., A. B., and MAURICE G. BROOKS and HOWARD H. CLEAVES.

Parkersburg, W. Va.—Dec. 26; 9.30 to 11.30 A.M., vicinity of Terrapin Park, and open fields and woods east of city reservoir; 1 to 5.30 P.M., along Briscoe Run to Ohio River, and up to Summit. Clear; ground bare; no wind; temp. 58°. About 6 miles on foot. Duck, (Mallard) 12; Downy Woodpecker, 1; Red-bellied Woodpecker, 1; Flicker, 2; Crow, 100; Tree Sparrow, 6; Slate-colored Junco, 25; Song Sparrow, 33; Towhee, 1; Cardinal, 23; Cedar Waxwing, 30; Carolina Wren, 9; Brown Creeper, 3; Tufted Titmouse, 23; Chickadee, 44; Golden-crowned Kinglet, 4; Robin, 1; Bluebird, 1. Total, 18 species, 319 individuals.—MISS LAURA B. MOORE and P. W. ATHEY, and WALTER DONAGHHO.

Macon, Ga. (at Stratton station in forenoon and North Highlands in afternoon).—Dec. 25; 10 A.M. to 4 P.M. Clear; ground covered with dead grass and weeds; west wind, light; temp. 48° at start, 66° at return, maximum for the day 70°. About 7 miles on foot. Observers together in forenoon, separate in afternoon. Killdeer, 1; Bob-white, 8 (1 flock); Mourning Dove, 8; Marsh Hawk, 1; Sparrow Hawk, 1; Flicker, 1; Phoebe, 1; Blue Jay, 5; Red-winged Blackbird, 75 (1 flock); Meadowlark, 25 (1 flock); Goldfinch, 1; Vesper Sparrow, 15; White-throated Sparrow, 6; Field Sparrow, 30; Carolina Junco, 25; Song Sparrow, 12; Fox Sparrow, 4; Towhee, 2; Cardinal, 2; Loggerhead Shrike, 3; Myrtle Warbler, 4; Mockingbird, 5; Catbird, 1; Brown Thrasher, 1; Carolina Wren, 1; Tufted Titmouse, 1; Carolina Chickadee, 3; Ruby-crowned Kinglet, 10; Robin, 20 (1 flock). Total, 30 species 272 individuals. English Sparrows numerous only in city.—FRANCIS E. STUBBS and HENRY FOX.

Macon, Ga.—Dec. 26; 9.30 A.M. to 5 P.M. Partly cloudy and misty until 1 P.M., then clear; very light southwest wind; temp. 49° at start, 64° at return, considerably warmer in early afternoon. Eight miles on foot through hilly country, creek and river valley. Observers together during almost all of the time. Black Vulture, 4; Sparrow Hawk, 1; Flicker, 3; Phoebe, 4; Blue Jay, 6; Crow, 6; Meadowlark, 12; Purple Finch, 2; Goldfinch, 30 (est.); Savanna Sparrow, 35 (est.); White-throated Sparrow, 7; Chipping Sparrow, 50 (est.); Field Sparrow, 50 (est.); Junco, 18; Fox Sparrow, 20; Towhee, 2; Cardinal, 12; Loggerhead Shrike, 2; Myrtle Warbler, 5; Pine Warbler, 5; Mockingbird, 4; Carolina Wren, 12; Chickadee, 4; Golden-crowned Kinglet, 4; Ruby-crowned Kinglet, 4; Hermit Thrush, 2; Robin, 25; Bluebird, 1. Total, 28 species, 384 individuals.—BERYL T. MOUNTS, LEWIS H. MOUNTS, ELSIE B. TUTTLE and R. G. VON TABEL (Ballard Normal School).

Palm Beach, Fla.—Dec. 25; 8 A.M. to 4 P.M. Clear; wind very light; temp. 75° at noon. In A.M., Ocean Boulevard south toward Delray; in P.M., West Palm Beach toward Everglades. Observers together. Ring-billed Gull, 8; (Royal?) Tern, 4; Anhinga, 2; Brown Pelican, 2.

Red-head Duck, 20; American Bittern, 1; Great Blue Heron, 1; Reddish Egret [? Ed.], 10; (1 dark phase, 9 white); Louisiana Heron, 22; Green Heron, 8; Wilson's Snipe, 2; Lesser Yellow-legs, 25; Killdeer, 10; Mourning Dove, 2; Turkey Vulture, 40; Black Vulture, 15; Marsh Hawk, 12; Sparrow Hawk, 15; Bald Eagle, 2; Belted Kingfisher, 10; Red-bellied Woodpecker, 2; Phoebe, 14; Fish Crow, 20; Red-winged Blackbird, 20; Purple (?) Grackle, 28; Cardinal, 1; Tree (?) Swallow, 2; Loggerhead Shrike, 18; Pine Warbler, 2; Palm Warbler, 36; Maryland (?) Yellow-throat, 2; Mockingbird, 40; Catbird, 2; House Wren, 1; Robin, 3. Total, 35 species, 401 individuals.—**DRYDEN** and **CYNTHIA KUSER**.

Zephyrhills, Fla. (to Crystal Springs and Blackwater Creek and back).—Dec. 25; daylight to dark (7 A.M. to 6 P.M.). Weather bright and clear; very little wind; temp. 60° to 72°. Eleven miles on foot one way and return by auto. Ward Heron, 1; Killdeer, 1; Mourning Dove, 39; Ground Dove, 4; Turkey Buzzard, 6; Black Vulture, 7; Red-shouldered Hawk, 3; Sparrow Hawk, 1; Florida Barred Owl, 1; Belted Kingfisher, 2; Pileated Woodpecker, 1; Hairy Woodpecker, 1; Southern Downy Woodpecker, 1; Red-cockaded Woodpecker, 2; Red-bellied Woodpecker, 2; Flicker, 6; Phoebe, 7; Florida Crow, 2; Florida Blue Jay, 12; Florida Meadowlark, 20; Loggerhead Shrike, 7; Florida Cardinal, 11; Florida Red-winged Blackbird, 9; Chipping Sparrow, 12; Pine Woods Sparrow, 3; White-throated Sparrow, 1; Song Sparrow, 2; Towhee, 3; Blue-headed Vireo, 3; Black and White Warbler, 2; Palm Warbler, 4; Prairie Warbler, 1; Yellow-throated Warbler, 2; Florida Yellow-throat, 3; Pine Warbler, 4; Ovenbird, 3; Mockingbird, 18; Catbird, 1; Brown Thrasher, 1; House Wren, 10; Florida Wren, 3; Tufted Titmouse, 3; Carolina Chickadee, 7; Blue-Gray Gnatcatcher, 15; Ruby-crowned Kinglet, 1; Robin, 6; Bluebird, 18. Total, 47 species, about 272 individuals.—**EUGENE MOUNTS**.

Ann Arbor, Mich.—Dec. 26; 8.30 A.M. to 3.30 P.M. Clear; 1 in. of snow; wind west, light; temp. 35° to 48°. Observers together. Quail, 13; Ring-necked Pheasant, 1; Downy Woodpecker, 7; Blue Jay, 15; Crow, 96+; Purple Finch, 10; Tree Sparrow, 11; Junco, 11; Song Sparrow, 2; Cardinal, 4; White-breasted Nuthatch, 12; Chickadee, 18. Total, 12 species, 200+ individuals.—**JOSELYN** and **CLAUDE VAN TYNE**.

Detroit, Mich.—Dec. 24; northwest Detroit along Six-Mile Road; 8.30 A.M. to 11 A.M.; Belle Isle 12 to 3 P.M. Misty; light southeast winds; temp. 34°. Herring Gull, 21; Ring-billed Gull, 2; Red-head, 7; Scaup Duck, 38; Lesser Scaup Duck, 28; Bufflehead, 1; Downy Woodpecker, 3; Hairy Woodpecker, 6; Blue Jay, 5; Crow, 6; Redpoll, 2; Tree Sparrow, 20; Song Sparrow, 5; Brown Creeper, 2; White-breasted Nuthatch, 6; Red-breasted Nuthatch, 2; Tufted Titmouse, 2; Chickadee, 2. Total, 18 species, 158 individuals.—**RALPH BEEBE**.

Jackson, Mich. (near Goose Lake, 10 miles northeast of Jackson).—Dec. 25; 11 A.M. to 4 P.M. Heavy fog till 11 A.M., clear in P.M.; 4 in. of snow; wind southwest, light; temp. 36° at start, 38° at return, maximum 44°. Five and one half miles on foot, covering about 2 square miles. Observers together; 8 × binoculars. Bob-white, 13; Ruffed Grouse, 3; Hairy Woodpecker, 1; Downy Woodpecker, 8; Flicker (*auratus*), 4; Crow, 2; Blue Jay, 6; Purple Finch, 6; Pine Siskin, 28; Tree Sparrow, 1; Slate-colored Junco, 24; Cedar Waxwing, 18; Brown Creeper, 1; White-breasted Nuthatch, 6; Black-capped Chickadee, 9; Kinglet, 4; Robin, 3. Total, 17 species, about 140 individuals.—**EDITH K. FREY** and **WM. G. FARGO**.

Munsing, Mich.—Dec. 25; 9.15 A.M. to 2 P.M. Cloudy; 2 ft. of snow; wind southeast, light; temp. 34° at start, 38° at return. Eight miles on foot. Herring Gull, 2; Redpoll, 1; Evening Grosbeak, 72; White-winged Crossbill, 1; Pine Siskin, 1; Blue Jays, 15; Black-capped Chickadee, 5; Downy Woodpecker, 3; Red-breasted Nuthatch, 1. Total, 9 species, about 101 individuals.—**K. CHRISOFFERSON**.

Port Huron, Mich. (Lakeside Park, cemetery, and open woodland to the west).—Dec. 26; 10 A.M. to 4.30 P.M. Partly cloudy, melting snow scattered about sparingly; no wind; temp. 45°. Herring Gull, 32; Hairy Woodpecker, 1; American Crow, 7; Pine Grosbeak, 11; American Goldfinch, 18; Tree Sparrow, 45 (est. 1 flock); Slate-colored Junco, 30; Northern Shrike, 1; Brown Creeper, 2; White-breasted Nuthatch, 2; Black-capped Chickadee, 7; Golden-crowned Kinglet, 2. Total, 12 species, about 158 individuals.—**PAUL H. STEELE**.

Darlington, Wis.—Dec. 26; 8.45 to 11.30 A.M. and 1 to 3.30 P.M. Very little snow on ground; wind northeast; temp. at starting 27°. Distance covered, 6 miles. Observers together. Quail 13; Marsh Hawk, 2; Hairy Woodpecker, 2; Downy Woodpecker, 6; Blue Jay, 15; American Crow, 8; Grackle, 4; American Goldfinch, 2; Tree Sparrow, 9; Cardinal, 2; White-breasted Nuthatch, 5; Chickadee, 21; Golden-crowned Kinglet, 1. Total, 13 species, 90 individuals. The Cardinals have been seen for past three years in same place on Dec. 26.—MURRAY MCGINLEY and BERNICE ANDREWS.

Ellsworth, Wis.—Dec. 24; 9.30 A.M. to 3.30 P.M. Thawing; snow and frost dropping from trees; rather foggy; hardly any snow except on north slopes; temp. 32° to 24°. Headed south east of town and circled past Cudd school to railroad tracks and back to town; about 7 miles on foot, alone. Bob-white, 16 (1 covey); Great Horned Owl, 1; Hairy Woodpecker, 4; Downy Woodpecker, 2; Pileated Woodpecker, 1; Blue Jay, 9; Crow, 2; Tree Sparrow, 7; Slate-colored Junco, 18; White-breasted Nuthatch, 19. Total, 10 species, 78 individuals. A Red-bellied Woodpecker and Cardinal have been residents here this fall and winter. Everyone is wondering what has happened to the Chickadees.—WM. MARKHAM MORTON.

Evansville, Wis.—Dec. 26; 12.30 to 4.30 P.M. Partly cloudy; ground lightly covered with snow; temp. 36° to 40°; light northeast wind. Distance walked, 7 miles. Observers together. Red-tailed Hawk, 1; Hairy Woodpecker, 4; Downy Woodpecker, 9; Flicker, 2; Prairie Horned Lark, 8; Blue Jay, 11; Crow, countless; Redpoll, 2; Tree Sparrow, 4; White-breasted Nuthatch, 2; Black-capped Chickadee, 15. Total, 11 species, barring Crows, 51 individuals. English Sparrow, numerous. At dusk, as Crows were seeking their roosting-places they passed overhead in great flocks—counted 76 in one and 117 in another. Flight was practically continuous for nearly an hour, from northwest to southeast.—O. W. SMITH and MERL ROBERTS.

Hartland, Wis.—Dec. 23; 8.30 A.M. to 3.30 P.M. Cloudy, ground snow-covered; wind northwest, light; temp. 18° at start, 26° at return. Ten miles on foot along country roads, lanes and through open woods. Hairy Woodpecker, 3; Downy Woodpecker, 6; Blue Jay, 6; Crow, 7; Purple Finch, 12; Tree Sparrow, 36; Junco, 8; White-breasted Nuthatch, 10; Chickadee, 24. Total, 9 species, 112 individuals.—SUSIE L. SIMONDS.

Ladysmith, Wis.—Dec. 24; 11 A.M. to 4 P.M. Sky overcast; 4-in. snow; temp. 34°. Ten miles on foot, visiting Muskrat and Bass Lakes and following the Little Thornapple River 3 miles, stopping at a beaver-pond; thence along a logging-road to a second pond, mostly through heavy second growth timber and open brush lands. Ruffed Grouse, 20; Prairie Chicken, 2; Northern Pileated Woodpecker, 1; Hairy Woodpecker, 2; Blue Jay, 7; Purple Finch, 1 (not uncommon this winter); Redpoll, 20; White-breasted Nuthatch, 1; Black-capped Chickadee, 1. Total, 9 species, 56 individuals.—WALLACE B. GRANGE.

Lauderdale Lakes, near Elkhorn, Wis.—Dec. 26; 9.35 to 11.35 A.M. and 1.45 to 3.45 P.M. Morning clear, afternoon cloudy; ground snow-covered; wind southeast, shifting to northeast; temp. 37° at start and 31° at finish. About 7 miles on foot. Observers working together. Herring Gull, 1; Hairy Woodpecker, 1; Downy Woodpecker, 3; Blue Jay, 4; American Crow, 17; Red-winged Blackbird, 23; Purple Finch, 25; Redpoll, 5; Goldfinch, 1; Tree Sparrow, 21; Slate-colored Junco, 3; Brown Creeper, 1; White-breasted Nuthatch, 4; Black-capped Chickadee, 10. Total, 14 species, 119 individuals. A Marsh Hawk was observed the morning of the 27th.—ROBERT D. and LULA DUNBAR.

Madison, Wis.—Dec. 26; 11 A.M. to 3.45 P.M. Partly overcast; wind light; temp. 27° to 35°. Trip embraced four favored localities, all within 2 miles of the city limits. Distance between observing grounds covered by car; distance walked, 8 miles. Black Duck, 14; Bob-White, 27; Ruffed Grouse, 1; Long-eared Owl, 1; Barred Owl, 1; Hairy Woodpecker, 2; Downy Woodpecker, 5; Red-headed Woodpecker, 1; Blue Jay, 35; Crow, 10; Pine Siskin, 4; Tree Sparrow, 200; Junco, 40; White-breasted Nuthatch, 4; Tufted Titmouse (rare for Wisconsin), 1; Chickadee, 3; Golden-crowned Kinglet, 4; Robin, 1. Total, 18 species about 350 individuals.—WARNER TAYLOR.

Milwaukee, Wis.—Dec. 24; 8 A.M. to 4 P.M. Overcast sky, heavy mist all day; 3-in. snow on ground, melting; southwest, light, wind; temp. 33° at 8 A.M., 35° at noon, 36° at 4 P.M. Calhoun swamps, Menominee River, Lake Park and Milwaukee Harbor; 18 miles. Herring Gull, 10,000+ (probably twice as many, but impossible to estimate accurately Gull population of Milwaukee harbor); Merganser, 100+; Golden-eye Duck, 300+; Long-eared Owl, 3 and 1 dead; Barred Owl, 1 (dead, shot, seen alive on Dec. 17); Great Horned Owl, 1; Hairy Woodpecker, 5; Downy Woodpecker, 4; Flicker, 9; Blue Jay, 11; Crow, 28; Redpoll, 14; Snow Bunting, 1 heard; Tree Sparrow, 150+; Junco, 3; Brown Creeper, 6; White-breasted Nuthatch, 3; Chickadee, 20; Robin, 2 (in good condition; wintering). Total, 19 species, over 10,650 individuals.—H. L. STODDARD and C. JUNG.

Minneapolis, Minn. (west side Mississippi River and lower portion valley of Minnehaha Creek).—Dec. 26; 10 A.M. to 2 P.M. Dark and cloudy, no snow; no wind; temp. nearly uniform at 30°. Four to 5 miles on foot. Observers together. Hairy Woodpecker, 3; Downy Woodpecker, 7; Blue Jay, 11; Crow, 4; Goldfinch, 12 (1 flock); Tree Sparrow, 3; Junco, 2; Brown Creeper, 2; White-breasted Nuthatch, 5; Chickadee, 5. Total, 10 species, about 54 individuals.—MRS. JUDSON L. WICKS, MISS MATHILDE HOLTZ, and MRS. PHELPS WYMAN.

Berlin Center, Ohio.—Dec. 25; 7.30 A.M. to 5 P.M. Cloudy at sunrise, but brilliant sunshiny day, growing hazy in late P.M.; ground covered with snow which gradually melts revealing some bare ground; slight wind from southeast dying down as day advances; temp. 34° to 46°. Along Section No. 60, E. and A. Division of Pennsylvania System. Distance walked about 12 miles. Bob-white, 125; Cooper's Hawk, 1; Red-tailed Hawk, 3; Red-shouldered Hawk, 2; Sparrow Hawk, 2; Hairy Woodpecker, 2; Downy Woodpecker, 9; Red-headed Woodpecker, 54; Red-bellied Woodpecker, 4; Blue Jay, 2; Crow, 18; Tree Sparrow, 15; White-breasted Nuthatch, 6; Tufted Titmouse, 11; Black-capped Chickadee, 7. Total, 15 species, 262 individuals. English Sparrow, 34.—ERNEST W. VICKERS.

Canton, Ohio.—Dec. 26; 8 A.M. to 5 P.M. Clear; very light wind; temp. 37° to 51°. Observers together. Distance covered, 5 miles on foot and 20 miles by auto. Bob-white, 10; Sharp-shinned Hawk, 1; Belted Kingfisher, 2; Downy Woodpecker, 14; Red-headed Woodpecker, 2; Blue Jay, 5; Crow, 2; Tree Sparrow, 112; Junco, 15; Song Sparrow, 20; Cardinal, 10; White-breasted Nuthatch, 20; Tufted Titmouse, 3; Chickadee, 20. Total, 14 species, 236 individuals. On Dec. 24 and 25 a Robin sang in the garden of one of the observers for fully ten minutes each day.—MRS. MAY S. DANNER, MRS. P. J. BERNOWER, and MARY KING.

Cadiz, Ohio.—Dec. 24; 9.15 A.M. to 1.15 P.M. Cloudy; ground bare except an inch of snow in the woods and on northern slopes; wind west, light; temp. 32° at start, 36° at return. In the fields and woods south and west of Cadiz. Eight miles on foot. Observers together. Ring-necked Pheasant, 12 (3 females and 9 males); Bob-white, 16; Hairy Woodpecker, 3; Downy Woodpecker, 11; Red-bellied Woodpecker, 15; Flicker, 2; Blue Jay, 1; Crow, 10; Tree Sparrow, 50; Slate-colored Junco, 22; Song Sparrow, 8; Cardinal, 7; Brown Creeper, 1; White-breasted Nuthatch, 15; Tufted Titmouse, 18; Chickadee, 17; Robin, 2. Total, 17 species, about 210 individuals. The Ring-necked Pheasants belonged to 25 survivors of a shipment of 50 young birds that were released last summer in our Chautauqua Park.—HARRY B. MCCONNELL, JOHN WORLEY and MILTON RONSHEIM.

Columbus, Ohio.—Dec. 23; 8.30 A.M. to 12.30; 1.30 to 5 P.M. Fair in A.M.; heavy clouds in P.M.; 2-in. snow on ground; wind moderate, southwest; temp. 28° to 35°. Distance covered, 5 miles on foot, about 35 miles by automobile. Observers together. Bob-white, 48; Mourning Dove, 24; Marsh Hawk, 2; Cooper's Hawk, 2; Red-shouldered Hawk, 1; Sparrow Hawk, 5; Barn Owl, 1; Screech Owl, 1; Hairy Woodpecker, 7; Downy Woodpecker, 21; Red-headed Woodpecker, 46; Red-bellied Woodpecker, 3; Flicker, 6; Horned Lark, heard; Blue Jay, 19; Crow, 26; Meadowlark, 4; Goldfinch, 7; Tree Sparrow, 141; Junco, 55; Song Sparrow, 8; Towhee, 3; Cardinal, 29; Carolina Wren, 2; Brown Creeper, 14; White-breasted Nuthatch, 15; Tufted Titmouse, 22; Chickadee, 12; Golden-crowned Kinglet, 13; Robin, 1; Bluebird,

13. Total, 31 species, 542 individuals. E. S. THOMAS, JOHN THOMAS, MILTON TRAUTMAN, and ROBERT GEIST.

Buckeye Lake, Ohio.—Dec. 23; 7 A.M. to 3 P.M. Weather conditions as above. Distance covered, 6 miles. Observers together. Mallard, 9; Black Duck, 8; Quail, 18, 20, 25; Dove, 1; Marsh Hawk, 2; Red-shouldered Hawk, 1; American Rough-legged Hawk, 1; Sparrow Hawk, 11; Barred Owl, 1; Screech Owl, 1; Hairy Woodpecker, 3; Downy Woodpecker, 20; Red-headed Woodpecker, 50; Red-bellied Woodpecker, 12; Flicker, 17; Horned Lark, 35; Blue Jay, 8; Crow, 30; Purple Finch, 2; Goldfinch, 8, 4, 3; Tree Sparrow, 40; Junco, 19; Song Sparrow, 12; Cardinal, 35; Carolina Wren, 2; Brown Creeper, 15; White-breasted Nuthatch, 25; Tufted Titmouse, 14; Chickadee, 30; Golden-crowned Kinglet, 15; Robin, 30. Total, 31 species, 444 individuals. All larger numbers approximate.—DALE PONTIUS, FREDERICK WOOD, and C. F. WALKER.

Flint, Ohio.—Dec. 23; 2 to 4 P.M. Weather conditions as above. Distance covered, 6 miles. Red-tailed Hawk, 1; Sparrow Hawk, 1; Blue Jay, 2; Crow, 10; Bob-white, heard twice; Downy Woodpecker, 6; Junco, 4; Goldfinch, 1; Tree Sparrow, 60; Song Sparrow, 25; Cardinal, 15; Brown Creeper, 2; Golden-crowned Kinglet, 2; White-breasted Nuthatch, 2. Total, 14 species, 135 individuals.—ROBERT GORDON.

Total above three lists (Wheaton Club, Columbus, Ohio), 37 species; 1,141 individuals. Also seen Dec. 17: Myrtle Warbler, 1; Starling, 14. The former is the first winter record for central Ohio of which I have heard. The Starling was first seen at Columbus in the fall of 1921. It has been observed six times since. Short-eared Owls, very abundant last year, are rare this winter.—ROBERT GORDON.

Dayton, Ohio (Stillwater Valley, vicinity of Little York and Englewood Dam).—Dec. 25; 8.30 to 10.30 A.M.; 1.30 to 4 P.M. Nearly clear; ground bare at start, thawing about noon; patches of snow in sheltered locations; some ice in river; wind southeast to southwest, very slight; temp. 32° at start, 44° at return. About 9 miles on foot. Duck, 1 (Anatinæ); Cooper's Hawk, 1; Red-tailed (?) Hawk, 1; Sparrow Hawk, 2; Screech Owl, 1 (heard after dark); Kingfisher, 2; Hairy Woodpecker, 5; Downy Woodpecker, 10; Flicker, 2; Prairie (?) Horned Lark, 24; Blue Jay, 15; Crow, 19; Meadowlark, 8; Tree Sparrow, 57; Slate-colored Junco, 89; Song Sparrow, 23; Cardinal, 17; Brown Creeper, 1; Carolina Wren, 1 (singing); Tufted Titmouse, 14; Chickadee, 12; Robin, 1. Total, 22 species, 306 individuals.—BEN J. BLINCOE.

Hamilton, Ohio.—Dec. 24; 8 A.M. to 1 P.M. Cloudy, ground partly covered with snow, wet; wind southwest, light; temp. 42° at start, 50° at return. Observers together. Nine miles on foot through open fields, wood patches, and along river. Herring Gull, 8; Bob-white, 12 (1 covey); Marsh Hawk, 1; Sparrow Hawk, 3; Kingfisher, 3; Hairy Woodpecker, 4; Downy Woodpecker, 9; Red-headed Woodpecker, 2; Flicker, 18; Horned Lark, 12; Blue Jay, 4; Crow, 31; Tree Sparrow, 76; Song Sparrow, 40; Cardinal, 20; Brown Creeper, 2; Tufted Titmouse, 9; Chickadee, 48; Golden-crowned Kinglet, 1. Total, 19 species, 303 individuals.—FRANK HARBAUM and ANDREW CROW.

Hillsboro, Ohio.—Dec. 25. Clear, no snow; windless; temp. 38° to 52°. Walked 5 miles principally along wooded stream-banks and weed patches. Bob-white, 10; Mourning Dove, 12; Black Vulture, 25; Sharp-shinned Hawk, 1; American Rough-legged Hawk, 1; Sparrow Hawk, 1; Screech Owl (red-barred), 1; Belted Kingfisher, 1; Hairy Woodpecker, 6; Downy Woodpecker, 10; Red-bellied Woodpecker, 12; Northern Flicker, 8; Blue Jay, 15; American Crow, 200; Meadowlark, 3; American Goldfinch, 7; Tree-Sparrows and Slate-colored Juncos, great flocks everywhere; Song Sparrow, 10; Towhee, 1; Cardinal, 15; Mockingbird, 1; Carolina Wren, 1; Bewick's Wren, 2; White-breasted Nuthatch, 2; Tufted Titmouse, 20; Chickadee, 30; American Robin, 100; Bluebird, 20.—KATIE M. ROADS.

Lakewood (Cleveland), Ohio.—Dec. 23; 7.30 A.M. to 5 P.M. Cloudy till 9.30 A.M., clear till 3.30 P.M., then cloudy; southwest wind, velocity 18 miles at start, 10 miles at return; temp. 35° at start, 36° at return; area covered, 7 miles down Rocky River valley, thence west 9 miles along shore of Lake Erie; ground covered with snow, river frozen over, 50 foot fringe

of ice and frozen snow along lake shore. Herring Gull, 25; Bonaparte's Gull, 19; Merganser, 2; Golden-eye, 4; Bob-white (8 coveys) 99; Sparrow Hawk, 1; Hairy Woodpecker, 3; Downy Woodpecker, 13; Red-headed Woodpecker, 5; Blue Jay, 2; Crow, 11; Pine Siskin (?), 1; Tree Sparrow, 93; Slate-colored Junco, 33; Song Sparrow, 5; Cardinal, 16; Brown Creeper, 1; White-breasted Nuthatch, 11; Tufted Titmouse, 27; Chickadee, 18; Golden-crowned Kinglet, 10. Total, 21 species, 399 individuals. Dec. 16: Robin, 1.—H. E. DUEB.

Mt. Healthy, Ohio.—Dec. 26; 9 A.M. to 3 P.M. Clear; still; temp. 52° at start, 62° on return. Typical spring day. Loitered 4 miles, through heavy woods, along semi-wooded waterway, across weed-fields, and among stunted second growth of trees, brush, and briars. Killdeer, 2; Bob-white, 18, (2 coveys); Sharp-shinned Hawk, 1; Red-shouldered Hawk, 1; Sparrow Hawk, 2; Hairy Woodpecker, 3; Downy Woodpecker, 5; Red-bellied Woodpecker, 1; Flicker, 2; Blue Jay, 4 (Blue Jays seem to be vanishing from this region); Crow, 18; Goldfinch, 10; Tree Sparrow, 14; Slate-colored Junco, 40 (usually far more numerous); Song Sparrow, 14; Cardinal, 6; Cedar Waxwing, 12 (one flock feeding on fruit of hackberry); Carolina Wren, 2; Brown Creeper, 1; Tufted Titmouse, 12; Chickadee, 16; Ruby-crowned Kinglet, 1; Robin, 8; Bluebird, 14. Total of 24 species, 207 individuals. Five days ago this section of Ohio was under snow and sleet, the mercury touched zero, and birds fasted. Today they were scattered, quiet and intent upon feeding; so an observer would likely miss not only individuals, but even species.—EUGENE SWOPE.

Norwood, Ohio.—Dec. 26; 6.30 A.M. to 5.30 P.M. Warm sun; wind east; temp. 35° to 60°. Covered about 20 miles on foot and 20 riding; from Norwood to Remington (Donley's Ponds) to Reading and return. Observers together. Pied-billed Grebe, 1; Coot, 1 (found dead); Mourning Dove, 2; Marsh Hawk, 2; Sparrow Hawk, 1; Hairy Woodpecker, 2; Downy Woodpecker, 9; Red-bellied Woodpecker, 3; Flicker, 8; Blue Jay, 5; Crow, 35; Goldfinch, 17; Slate-colored Junco, 40; Song Sparrow, 58; Cardinal, 20; Mockingbird, 1; Carolina Wren, 18; Brown Creeper, 2; Tufted Titmouse, 20 (sang); Carolina Chickadee, 35 (sang; some may have been Black-capped Chickadees); Golden-crowned Kinglet, 5; Robin, 22; Bluebird, 2; Total, 23 species, 309 individuals.—BELDEN SOUR, DAVID MARS, and CARSON WHITING.

Oberlin, Ohio.—Dec. 26; 8 A.M. to 6 P.M.; A.M. clear, P.M. partly cloudy; ground partially covered with melting snow; wind very light, northeast; temp. 40° at start, 45° at return. Two routes were followed, one north to Oak Point, and the other northeast along Black River. Total of 25 miles covered on foot. Observers divided into group of four and one alone. Herring Gull, 16; Bob-white, 35; Mourning Dove, 1; Red-shouldered Hawk, 2; Sparrow Hawk, 5; Barred Owl, 1; Belted Kingfisher, 1; Hairy Woodpecker, 7; Downy Woodpecker, 17; Red-bellied Woodpecker, 3; Northern Flicker, 2; Blue Jay, 27; Crow, 87; Purple Finch, 17; Goldfinch, 3; Tree Sparrow, 63; Junco, 15; Song Sparrow, 9; Cardinal, 15; Brown Creeper, 1; White-breasted Nuthatch, 12; Tufted Titmouse, 33; Black-capped Chickadee, 7; Golden-crowned Kinglet, 7; Robin, 3. Total, 25 species, 389 individuals.—HAROLD C. JONES, LYNDSE JONES, GEORGE T. JONES, WILLIAM E. WILLIAMSON, S. CHAS. KENDEIGH.

Painesville, Ohio.—Dec. 24; 9 A.M. to 4.30 P.M. Very dark and foggy, heavy clouds; very light winds; temp. 40°. A trip to the lake in A.M.; woodlands in P.M. Observers together. Herring Gull, 30; Bonaparte's Gull, 30; Merganser, 1; Ruffed Grouse, 2; Great Horned Owl, 1; Kingfisher, 1; Hairy Woodpecker, 3; Downy Woodpecker, 10; Red-headed Woodpecker, 3; Red-bellied Woodpecker, 3; Flicker, 1; Blue Jay, 16; Crow, 3; Bronzed Grackle, 3; Purple Finch, 5; Pine Siskin, 10; Tree Sparrow, 4; Slate-colored Junco, 10; Song Sparrow, 2; Towhee, 12 (unusual, only 1 female); Cardinal, 10; Brown Creeper, 2; White-breasted Nuthatch, 8; Tufted Tit, 1; Chickadee, 12; Golden-crowned Kinglet, 1. Total, 26 species, 184 individuals.—E. A. DOOLITTLE and WALLACE BAKER.

Paulding, Ohio (along Flat Rock Creek).—Dec. 26; 8 A.M. to 1 P.M., and 2 to 4 P.M. Clear ground partly covered with melting snow; no wind; temp. 30° to 42°. Thirteen miles on foot. Observers together. Bob-white, 30 (3 coveys); Hungarian Partridge, 12; Mourning Dove, 9; Sharp-shinned Hawk, 1; Sparrow Hawk, 1; Barred Owl, 2; Screech Owl, 1; Downy Wood-

pecker, 14; Hairy Woodpecker, 3; Red-headed Woodpecker, 20; Northern Flicker, 25; Blue Jay, 23; Crow, 12; Tree Sparrow, 75 (est.); Song Sparrow, 1; Towhee, 2; Cardinal, 8; Brown Creeper, 2; White-breasted Nuthatch, 13; Tufted Titmouse, 30. Total, 20 species, about 284 individuals. The total absence of the Chickadee is notable. On the trip a year ago over the same ground 23 were seen.—L. H. GRESSLEY.

Youngstown, Ohio.—Dec. 25; 7.30 A.M. to 5.30 P.M. Clear; ground covered with about 4 inches of snow; light southwest wind all day; temp. 36° to 45°. Observers worked separately in different localities, covering an estimated distance of about 50 miles. The thawing of the snow during the day made it particularly favorable for tracking. Ring-necked Pheasant, 1; Bob-white, 441 (31 coveys); Ruffed Grouse, 2; Mourning Dove, 2; Marsh Hawk, 2; Sharp-shinned Hawk, 1; Red-tailed Hawk, 1; Sparrow Hawk, 6; Barred Owl, 1; Screech Owl, 3; Great Horned Owl, 2; Hairy Woodpecker, 11; Downy Woodpecker, 102; Northern Pileated Woodpecker, 2; Red-headed Woodpecker, 7; Red-bellied Woodpecker, 8; Northern Flicker, 3; Blue Jay, 18; Crow, 38; Purple Finch, 5; Goldfinch, 1; Pine Siskin, 46; Tree Sparrow, 304; Slate-colored Junco, 53; Song Sparrow, 22; Towhee, 6; Cardinal, 46; Cedar Waxwing, 1; Brown Creeper, 8; White-breasted Nuthatch, 120; Red-breasted Nuthatch, 3; Tufted Titmouse, 76; Chickadee, 84; Golden-crowned Kinglet, 22; Robin, 1; Bluebird, 2. Total, 36 species, 1,451 individuals.—GEORGE L. FORDYCE, C. A. LEEDY, EVAN C. DRESSEL, WILLIS H. WARNER, H. W. WEISGERBER, E. C. MINICH.

Xenia, Ohio.—Dec. 25; 9 A.M. to 4 P.M. Clear in A.M., hazy in P.M. Ground rapidly becoming bare, crusty snow in woods; wind southeast, shifting to southwest, light; temp. 37° at start, 45° at return. Eight miles on foot along Little Miami River, also forests, fields, and pastures near Trebeins and Alpha. Mallard, 78; Black Duck, 2; species of small diving Duck, 2; Mourning Dove, 10; Marsh Hawk, 1; Red-tailed Hawk, 1; Sparrow Hawk, 1; Belted Kingfisher, 4; Hairy Woodpecker, 1; Downy Woodpecker, 10; Red-bellied Woodpecker, 4; Flicker, 4; Crow, 18; Meadowlark, 20; Tree Sparrow, 10; Slate-colored Junco, 11; Song Sparrow, 12; Cardinal, 9; Carolina Wren, 1; Brown Creeper, 4; White-breasted Nuthatch, 1; Tufted Titmouse, 11; Chickadee, 8; Golden-crowned Kinglet, 3; Robin, 4. Total, 25 species, 239 individuals.—HELEN ANKENY.

Goshen, Ind.—Dec. 26; 11 A.M. to 5 P.M. Sunshine; no wind; some snow and ice; temp. 40°. Ten miles on foot from Milford Junction north along Turkey Creek to New Paris. Observers together. Mourning Dove, 3; Hairy Woodpecker, 7; Downy Woodpecker, 8; Flicker, 3; Blue Jay, 12; Crow, 18; Song Sparrow, 5; Tree Sparrow, 14; Slate-colored Junco, 8; Cardinal, 6; Brown Creeper, 1; White-breasted Nuthatch, 4; Tufted Titmouse, 2; Black-capped Chickadee, 6; Golden-crowned Kinglet, 1. Total, 15 species, 98 individuals.—MRS. H. W. EBY and MRS. GEO. R. HARPER.

Kokomo, Ind.—Dec. 25; 8.30 A.M. to 2.30 P.M. Partly cloudy; snow in patches; south wind, light; temp. 36° to 42°. West from Kokomo on bicycle stopping at points 1, 5, 9 miles along Wildcat Creek. Mourning Dove, 2; Marsh Hawk, 2; Sparrow Hawk, 2; Hairy Woodpecker, 2; Downy Woodpecker, 5; Red-headed Woodpecker, 8; Red-bellied Woodpecker, 2; Flicker, 1; Blue Jay, 7; Crow, 35; Goldfinch, 10; Tree Sparrow, 25; Junco, 30; Song Sparrow, 5; Cardinal, 5; Brown Creeper, 4; White-breasted Nuthatch, 5; Tufted Titmouse, 9; Chickadee, 2; Golden-crowned Kinglet, 1; Robin, 1. Total, 21 species, about 163 individuals. On Dec. 24: Bob-white, 16; Prairie Horned Lark, 28; Meadowlark, 3. Dec. 26: Purple Finch, 1; Towhee, 2 (females); Winter Wren, 1.—RUSSELL HUBRIGHT.

Lafayette, Ind.—Dec. 25; 9 A.M. to 1.30 P.M. Sunshiny most of time; ground bare; wind southwest, light; temp. at start 34°, at return 48°. Route was through Happy Hollow, along Tecumseh Trail, through Trail Park and the vicinity of Soldiers' Home, distance aggregated 6 miles. Sparrow Hawk, 1; Hairy Woodpecker, 1; Downy Woodpecker, 11; Red-bellied Woodpecker, 2; Flicker, 3; Blue-Jay, 6; Crow, 9; American Goldfinch, 2; Tree Sparrow, 5; Junco, 83; Song Sparrow (singing), 10; Cardinal, 6; Winter Wren, 1; Brown Creeper, 1; White-breasted Nuthatch, 3; Tufted Titmouse, 16. Total, 16 species, 161 individuals.—M. L. FISHER.

Noblesville, Ind.—Dec. 25; 9 A.M. to 1 P.M. Clear, patches of snow on the ground; light southwest wind; temp. 36° at start, 52° at return. Six miles on foot; $\frac{2}{3}$ woodland, $\frac{1}{3}$ meadow and marsh. Kingfisher, 1; Hairy Woodpecker, 1; Downy Woodpecker, 11; Red-headed Woodpecker, 32; Flicker, 19; Blue Jay, 5; Crow, 11; Vesper Sparrow, 22; Slate-colored Junco, 8; Song Sparrow, 28; Towhee, 2; Cardinal, 5; Brown Creeper, 6; Tufted Titmouse, 6; Black-capped Chickadee, 4. Total, 15 species, 161 individuals.—EARL BROOKS, D.D.S.

Roachdale, Ind.—Dec. 25; 9 A.M. to 3 P.M. Clear; ground bare, wind southwest, light; temp. 34° at start, 40° at return. Eight miles on foot. Pin-tailed (?) Duck, 1; Red-tailed Hawk, 3; Sparrow Hawk, 1; Downy Woodpecker, 7; Red-bellied Woodpecker, 2; Flicker, 9; Prairie Horned Lark, 12; Blue Jay, 6; American Crow, 64; American Goldfinch, 1; Tree Sparrow, 30; Slate-colored Junco, 20; Song Sparrow, 4; Cardinal, 7; Brown Creeper, 1; White-breasted Nuthatch, 3; Tufted Titmouse, 9; Black-capped Chickadee, 11; American Robin, 31; Bluebird, 3. Total, 20 species, about 225 individuals.—WARD J. RICE.

Terre Haute, Ind.—Dec. 23; 8.30 A.M. to 1.30 P.M. Cloudy; ground with patches of snow; west wind, light; temp. about 37°; east and northeast along Lost Creek and over farm and woodland. About 5 miles on foot. Observers together. Mourning Dove, 5; Sharp-shinned Hawk, 1; Sparrow Hawk, 1; Hairy Woodpecker, 4; Downy Woodpecker, 3; Red-headed Woodpecker, 2; Flicker, 12; Blue Jay, 14; Crow, 8; Meadowlark, 1; Vesper Sparrow, 5; Tree Sparrow, 16; Slate-colored Junco, 15; Cardinal, 12; White-breasted Nuthatch, 9; Tufted Titmouse, 10; Chickadee, 11; Robin, 11; Bluebird, 53. Total, 19 species, 193 individuals.—J. M. TILLEY and M. F. WHELAN.

Bloomington, Ill.—Dec. 25; 9 A.M. to 12 M. Clear; ground nearly bare, muddy surface; wind south, light; temp. 32° at start, 46° at return. Five miles on foot, streams, woods and fields. Observers together. Marsh Hawk, 1; Hairy Woodpecker, 4; Downy Woodpecker, 6; Flicker, 5; Blue Jay, 14; Crow, 8; Rust Blackbird, 1; Evening Grosbeak, 2; Tree Sparrow, 8; Chipping (?) Sparrow, 1; Slate-colored Junco, 9; Brown Creeper, 2; Chickadee, 15. Total, 13 species, 76 individuals.—HAROLD B. WOOD, M.D. and MERRILL WOOD.

[The record of a bird as rare as a wintering Chipping Sparrow is valuable if submitted without comment. The mildness of the season, and other reports of the species, indicate that there may have been no error in this identification, but there is not time to investigate such records before the Census goes to press.—ED.]

Hindsboro, Ill.—Dec. 23; 10 A.M. to 2 P.M. Heavily clouded; ground bare; wind west, moderate; temp. 37° at start, 43° at return. Eight miles on foot—northwest from town across prairie and return. Observers together, four in number. Sparrow Hawk, 1; Barred Owl, 1; Hairy Woodpecker, 1; Horned Lark, 20; Crow, 12; Slate-colored Junco, 10; Cardinal, 4 (2 pairs). Total, 7 species, 49 individuals. English Sparrow, hundreds.—O. V. SCHAEFFER, Superintendent of Schools.

Ohio, Ill.—Dec. 25; 12 M. to 5 P.M. Clear; no snow; wind southeast, light; temp. 58° at start, 44° at return. Eight miles on foot. Bob-white, 32 (2 coveys); Mourning Dove, 18 (1 flock); Marsh Hawk, 3; Red-tailed Hawk, 2; Rough-legged Hawk, 4; Pigeon Hawk, 1; Sparrow Hawk, 1; Short-eared Owl, 2; Downy Woodpecker, 7; Prairie Horned Lark, 4; Blue Jay, 2; American Crow, 118; Tree Sparrow, 48; Cardinal, 3; Chickadee, 12. Total, 15 species, about 257 individuals. Used 8-power glasses.—ROBERT L. JACKSON.

Paxton, Ill.—Dec. 26; 9 A.M. to 2.15 P.M. Light clouds; ground slippery; wind northeast, moderate; temp. about 40°F. Observers together. Six miles through woods. Wild Duck, 1; Bob-white, 15; Marsh Hawk, 1; Red-tailed Hawk, 2; Sparrow Hawk, 2; Hairy Woodpecker, 11; Downy Woodpecker, 18; Red-bellied Woodpecker, 6; Flicker, 9; Prairie Horned Lark, 6; Blue Jay, 22; Crow, 48; Bronzed Grackle, 1; Purple Finch, 1; Lapland Longspur, 3; Tree Sparrow, 150+; Slate-colored Junco, 42; Song Sparrow, 3; Swamp Sparrow, 1; Cardinal, 18; Winter Wren, 1; Brown Creeper, 8; White-breasted Nuthatch, 5; Red-breasted Nuthatch, 1; Tufted Titmouse, 9; Black-capped Chickadee, 12; Robin, 1. Total, 27 species, about 397 individuals.—GEORGE E. and SIDNEY E. EKBLAW.

Port Byron, Ill.—Dec. 25; 8.20 to 11 A.M. and 12.10 to 4.20 P.M. Partly cloudy, fog and hoar frost in the morning, ground bare; wind south, moderate; temp. 30° at start, 48° at return. Fields and woods 3 to 5 miles southeast of Port Byron, and along the east bank of the Mississippi River from the lower end of Port Byron to 1 mile below Rapid City. Herring Gull, 15; American Merganser, 200; American Golden-eye, 300; Bob-white, 12 (1 covey); Rough-legged Hawk, 1; Short-eared Owl; Screech Owl, 1; Great Horned Owl, 1; Hairy Woodpecker, 5; Downy Woodpecker, 10; Red-bellied Woodpecker, 2; Prairie Horned Lark, 6; Blue Jay, 4; Crow, 8; Goldfinch, 3; Smith's Longspur, 1; Tree Sparrow, 55; Slate-colored Junco, 15; Cardinal, 1; Brown Creeper, 2; White-breasted Nuthatch, 10; Tufted Titmouse, 2; Chickadee, 15. Total, 23 species, about 670 individuals.—JOHN J. SCHAFER.

Waukegan, Ill.—Dec. 24; starting 8 A.M. Overcast; light southwest wind; temp. 36°. Herring and Ring-billed Gull, 1,200 (est.); Merganser, 16 (est.); Hairy Woodpecker, 1; Downy Woodpecker, 1; Blue Jay, 3; Crow, several; Purple Finch, 1; White-throated Sparrow, 1; Tree Sparrow, 11; Slate-colored Junco, 18. Total, 11 species, about 1,250 individuals.—WM. I. and GEORGE R. LYON.

Bettendorf, Iowa.—Dec. 23; 8.45 A.M. to 12 M., 2 to 4 P.M. Cloudy and hazy, rather dark after 3 P.M.; ground bare; creek frozen and river frozen except a number of open places; wind light, northwest; temp. 35°. Forest Park, McManus Woods and Credit Island Park. Davenport, and along Mississippi River and Duck Creek, Bettendorf. About 5 miles on foot, automobile used between places. Herring Gull, 2; American Merganser, 140; Canvasback, 8; American Golden-eye, 1,000; Bob-white, 20 (1 covey on Credit Island Park); Red-tailed Hawk, 1; Sparrow Hawk, 1; Hairy Woodpecker, 3; Downy Woodpecker, 16; Red-bellied Woodpecker, 3; Blue Jay, 5; Crow, 7; Red-winged Blackbird, 25; Tree Sparrow, 350; Junco, 33; Song Sparrow, 5; Cardinal, 7; White-breasted Nuthatch, 4; Tufted Titmouse, 21; Chickadee, 23. Total, 20 species, about 1,674 individuals. Saw 2 Marsh Hawks and 1 Bald Eagle on Dec. 26.—HUGO H. SCHRODER

Cedar Rapids, Iowa.—Dec. 25; 11 A.M. to 3.30 P.M. Clear; ground bare, except in sheltered places; light south wind; temp. 54° at start, 58° at return. Six miles on foot—timber land, meadow, and pasture. Bob-white, 4; Sparrow Hawk, 1; Hairy Woodpecker, 3; Downy Woodpecker, 1; Blue Jay, 6; American Crow, 5; Tree Sparrow, 9; Cardinal, 2; White-breasted Nuthatch, 2; Black-capped Chickadee, 11; Total, 10 species, 44 individuals.—GLEN M. HATHORN.

Des Moines, Iowa.—Dec. 24; 8 A.M. to 2 P.M. Clear; no snow; no wind in morning, light southwest wind from 12 to 2 P.M.; temp. 28° at start, 52° at return. Fifteen miles on foot.—along Des Moines River and vicinity southeast to Levey and back. Observers together. Mallard, 1; Bob-white, 9 (1 covey); Sharp-shinned Hawk, 1; Great Gray Owl, 4; Hairy Woodpecker, 5; Northern Downy Woodpecker, 24; Red-bellied Woodpecker, 2; Northern Flicker, 2; Blue Jay, 3; American Crow, 180 (est.); Bronzed Grackle, 30 (est.); Tree Sparrow, 94; Slate-colored Junco, 24; Cardinal, 22; White-breasted Nuthatch, 18; Tufted Titmouse, 20; Black-capped Chickadee, 68; Bluebird, 1. Total, 18 species; about 508 individuals. The Great Gray Owls were observed at a distance of 50 yards in good light with 8-power glasses and color markings on breast as well as color of eyes were carefully observed.—A. J. PALAS and JOHN WOODMANSEE.

Emmetsburg, Iowa.—Dec. 27; 8 A.M. to 5 P.M. Cloudy; no wind; temp. 20° at start, 38° at return. Seventeen miles on foot—west 1 mile to Des Moines river, north 7 miles, east 4 miles, west 2 miles, south to Emmetsburg. Observers together. Prairie Chicken, 27; Ring-necked Pheasant, 8; Mourning Dove, 1; Short-eared Owl, 3; Hairy Woodpecker, 5; Northern Downy Woodpecker, 11; Flicker, 2; Crow, 55; Blue Jay, 5; Magpie, 1; Western Meadowlark, 2; Lapland Longspur, 250; Tree Sparrow, 18; Slate-colored Junco, 25; Brown Creeper, 6; White-breasted Nuthatch, 24; Chickadee, 54. Total, 17 species, 497 individuals.—L. T. WEEKS and W. F. COULTAS.

Iowa City, Iowa.—Dec. 23; 8.35 A.M. to 3.30 P.M. Cloudy; no snow but river partly frozen

over; wind light, northwest at start, becoming quieter in afternoon; temp. at start 34° , on return 36° . South $4\frac{1}{2}$ miles then back to City Park in wide circle then along river 1 mile—about 12 miles on foot. Observers together. Mallard Duck, 5 (1 flock); Bob-white, 64 (4 coveys); Red-tailed Hawk, 1; Hairy Woodpecker, 3; Downy Woodpecker, 18; Red-bellied Woodpecker, 8; Blue Jay, 5; Crow, 12; Goldfinch, 9 (1 flock); White-throated Sparrow, 1; Tree Sparrow, 44; Slate-colored Junco, 56; Song Sparrow, 1; Cardinal, 12; White-breasted Nuthatch, 16; Tufted Titmouse, 11; Chickadee, 25; Ruby-crowned Kinglet, 2. Total, 18 species, 293 individuals.—DAYTON STONER and FRED L. FITZPATRICK.

Ogden, Iowa.—Dec. 25; 1 to 5 P.M. Partly cloudy; ground bare, with the exception of small patches of snow on the north hillsides; very little southwest wind; temp. 50° at start and 41° at return. Wooded hillsides along the Des Moines River and wooded bottoms of the River and Bluff Creek. Distance traveled 10 miles by automobile; 5 miles on foot. Observers together. Red-tailed (?) Hawk, 1; Barred Owl, 1; Hairy Woodpecker, 2; Downy Woodpecker, 1; Yellow-shafted Flicker, 1; Blue Jay, 1; Crow, 12; Tree Sparrow, 134; Cardinal, 1; Brown Creeper, 1; White-breasted Nuthatch, 6; Tufted Titmouse, 1; Black-capped Chickadee, 23. Total, 13 species, about 185 individuals. English Sparrow 6. Positive identification on all excepting the Hawk. Identified him by the harsh, loud cries which he gave, once before he came over the hilltops and again as he passed over.—W. M. ROSEN and WALTER ROSEN, JR.

Oskaloosa, Iowa.—Dec. 25; 9 A.M. to 1 P.M. Clear; wind south, light; temp. 34° at start, 45° on return. Five miles on foot, along Spring Creek and tributary ravines, returning by different route. Observers together. Bob-white, 1; Sharp-shinned Hawk, 1; Sparrow Hawk, 1; Barred Owl, 1; Hairy Woodpecker, 4; Downy Woodpecker, 6; Red-bellied Woodpecker, 5; Blue Jay, 1; Tree Sparrow, 125; Slate-colored Junco, 16; Cardinal, 5; Brown Creeper, 3; White-breasted Nuthatch, 6; Tufted Titmouse, 9; Black-capped Chickadee, 14; Total, 16 species, 198 individuals.—VERA MCCrackEN and GERTRUDE E. DIXON.

Pierson, Iowa.—Dec. 25; 9.30 A.M. to 12 M. and 1 to 5.30 P.M. Cloudy most of the time no snow; light, west wind; temp. 40° at start, 50° at return. In the forenoon, north and west of town across fields and meadows; afternoon along Pierson Creek, southeast to Cedar Bluff then through wooded ravines till return; 15 miles on foot. Prairie Hen, 30 (1 flock); Rough-legged (?) Hawk, 1; Cooper's (?) Hawk, 1; Hawk (sp.?) 1; Hairy Woodpecker, 2; Downy Woodpecker, 6; Prairie Horned Lark, 62; Blue Jay, 26; Crow, 2,000+ (1 flock of more than 1,000); Goldfinch, 8; Tree Sparrow, 65; Slate-colored Junco, 20; Brown Creeper, 2; White-breasted Nuthatch, 5; Chickadee, 32; Robin, 1. Total, 16 species, about 2,262 individuals. A Great Horned Owl was shot by a hunter Dec. 25; three Short-eared Owls were observed Dec. 20 and a covey of Quail (15) was reported recently as having been seen north of town.—WIER R. MILLS.

Sioux City, Iowa.—Dec. 27; 9.20 A.M. to 4.15 P.M. Cloudy, with frost on trees and bushes; temp. 22° to 26° . Woods along the Missouri River in Nebraska, on to Crystal Lake Woods on both the east and west side of the lake; 12 miles on foot, one observer. West 15th Street, one observer. Quail, 10; Ruffed Grouse, 1; Screech Owl, 1; Hairy Woodpecker, 5; Downy Woodpecker, 13; Northern Flicker, 7; Blue Jay, 4; American Crow, 1; American Goldfinch, 5; Tree Sparrow, 6; Slate-colored Junco, 13; Cardinal, 5; White-breasted Nuthatch, 4; Black-capped Chickadee, 31; Bluebird, 5. Total, 15 species, 111 individuals. The Ruffed Grouse has not been seen before for years but was formerly listed as common. The Bluebirds were found in open woods, unusual in this locality at this time of the year. The Robin is wintering here in several localities on the edge of but the last one reported seen was on Dec. 22. The Brown Creeper is usually seen but was not listed on this trip. Nov. 25: Purple Finch were seen Dec. 2: Red-shafted Flicker, American Crossbills about Dec. 20.—MRS. E. R. KING, MRS. H. M. BAILEY.

Winthrop, Iowa.—Dec. 24; 11.45 A.M. to 3.30 P.M. Cloudy first half of afternoon, then clear; practically no snow on the ground; frequent open spaces in creek; wind southeast,

light; temp. 40° at start and same at return. About 5 miles on foot. Thin woods along Buffalo Creek and vicinity. Observers together. Bob-white, 30+; Hawk, 1 (seen at a distance); Owl, 1 (one large bird was seen flying across an open field, but was unidentified owing to distance); Northern Downy Woodpecker, 6; Prairie Horned Lark, 3; Blue Jay, 1; Crow, 15; American Goldfinch, 1; White-breasted Nuthatch, 3; Black-capped Chickadee, 10. Total, 10 species, 71 individuals. A flock of nearly 100 Tree Sparrows was seen by the first observer a little later in the day.—FRED J. PIERCE and VANCE ALLYN.

Bowling Green, Ky.—Dec. 23; 6 A.M. to 5 P.M. Clear; ground bare; wind northwest, light; temp. 30° at start, 48° at return. Nashville Pike to Lost River, along Barren River and Jennings Creek—15 miles on foot. Killdeer, 9; Bob-white, 30; Mourning Dove, 110; Turkey Vulture, 1; Marsh Hawk, 1; Sharp-shinned Hawk, 2; Cooper's Hawk, 1; Sparrow Hawk, 2; Hairy Woodpecker, 1; Southern Downy Woodpecker, 16; Pileated Woodpecker, 1; Red-headed Woodpecker, 18 (this bird is wintering here for the first time in my ten years' experience); Red-bellied Woodpecker, 3; Flicker, 22; Prairie Horned Lark, 26; Blue Jay, 40; Crow, 500; Cowbird, 3 (not usually seen here after November 12, but abundant as late this year as December 9.); Red-winged Blackbird, 1; Meadowlark, 179; Rusty Blackbird, 95; Bronzed Grackle, 100; Purple Finch, 74; Goldfinch, 21; White-crowned Sparrow, 25; White-throated Sparrow, 86; Tree Sparrow, 14; Slate-colored Junco, 120; Song Sparrow, 90; Towhee, 27; Cardinal, 78; Cedar Waxwing, 35; Migrant Shrike, 2; Myrtle Warbler, 15; Mockingbird, 38; Carolina Wren, 14; Bewick Wren, 1; White-breasted Nuthatch, 5; Tufted Titmouse, 34; Carolina Chickadee 79; Golden-crowned Kinglet, 5; Robin, 245; Bluebird, 24. Total, 43 species, 2,191 individuals. Other birds seen a few days before or after census: Mallard, Red-tailed Hawk, Yellow-bellied Sapsucker, Chipping Sparrow, and Brown Creeper.—GORDON WILSON.

Nashville, Tenn.—Dec. 24; 8 A.M. to 5 P.M. Clear; wind slight; unusually warm 46° to 63°. Bellemeade, Overton Hills and 35 acre reservoir, Knapp Farm, Madison Station and Cumberland River bottom, 3 mi. east of town. Listed by four parties. Duck Lesser Scaups (?), 5; Wilson's Snipe, 2 (unusual at this season); Killdeer, 52; Bob-white, 14; Mourning Dove, 65; Turkey Vulture, 2; Black Vulture, 17 (12 were at a roost); Marsh Hawk, 5; Cooper's Hawk, 4; Red-tailed Hawk, 5; Sparrow Hawk, 11; Short-eared Owl, 2; Barred Owl, 2; Screech Owl, 1; Kingfisher, 2; Hairy Woodpecker, 5; Downy Woodpecker, 18; Yellow-bellied Sapsucker, 3; Pileated Woodpecker, 1; Red-headed Woodpecker, 5 (usually absent in winter); Red-bellied Woodpecker, 26; Flicker, 47; Prairie Horned Lark, 19; Blue Jay, 8; Crow, 90; Meadowlark, 200; Cowbird, 38; Bronzed Grackle, 1 (the usual large roosts of Grackles and Cowbirds are deserted this year); Purple Finch, 21; Goldfinch, 48; Savannah Sparrow, 4; White-crowned Sparrow, 10; White-throated Sparrow, 175; Field Sparrow, 60; Slate-colored Junco, 120; Song Sparrow, 130; Swamp Sparrow, 80; Fox Sparrow, 20; Towhee, 19; Cardinal, 95; Cedar Waxwing, 35 (4 flocks); Migrant Shrike, 1 (always rare here); Myrtle Warbler, 95; Mockingbird, 40; Carolina Wren, 43; Bewick's Wren, 9; Winter Wren, 3; Brown Creeper, 5; Tufted Titmouse, 45; Carolina Chickadee, 37; Golden-crowned Kinglet, 11; Hermit Thrush, 2; Robin, 160; Bluebird, 54. Total, 54 species, 2,032 individuals. House Sparrow, 200. A week previous, Pied-billed Grebe, 1, and White-breasted Nuthatch 2, were noted.—MR. and MRS. GEO. R. MAYFIELD, HARRY C. MONK, E. L. McNISH, H. S. VAUGHN, JESSE L. SHAVER, and ALBERT F. GANIER.

Creve Coeur Lake (St. Louis Co.).—Dec. 26; 10.15 A.M. to 4 P.M. Slight fog; wind very light; a warm day preceded by two warm days; temp. 49° to 58°. Seven miles on foot. Hairy Woodpecker, 1; Downy Woodpecker, 10; Sapsucker, 2; Red-headed Woodpecker, 1; Red-bellied Woodpecker, 1; Flicker, 1; Blue Jay, 5; Crow, 6; English Tree Sparrow, 1; White-throated Sparrow, 1; Tree Sparrow, 8; Junco, 25; Song Sparrow, 3; Fox Sparrow, 2; Cardinal, 8; Carolina Wren, 3; White-breasted Nuthatch, 2; Tufted Titmouse, 8; Chickadee, 11; Robin, 15; Bluebird, 5. Total, 21 species, 119 individuals.—EDWARD H. CHRISTIE.

Kansas City, Mo.—Dec. 25; Clear; ground bare; warm, temp. 45° at 9 A.M. Gull (sp.?)

2; Bob-white, 1; Mourning Dove, 15; Red-tailed Hawk, 2; Rough-legged Hawk, 1; Sparrow Hawk, 4; Screech Owl, 1; Hairy Woodpecker, 15; Downy Woodpecker, 26; Yellow-bellied Sapsucker, 1; Red-headed Woodpecker, 12; Red-bellied Woodpecker, 27; Flicker, 5; Blue Jay, 65; Crow, 34; Red-winged Blackbird, 10; Meadowlark, 3; Goldfinch, 11; Harris's Sparrow, 12; White-throated Sparrow, 10; Tree Sparrow, 100; Junco, 276; Song Sparrow, 25; Fox Sparrow (?) 1; Towhee, 1; Cardinal, 93; Mockingbird, 2; Carolina Wren, 22; Winter Wren, 2; Brown Creeper, 4; White-breasted Nuthatch, 11; Tufted Titmouse, 40; Chickadee, 105; Golden-crowned Kinglet, 1; Robin, 102; Bluebird, 14. Total, 37 species, 1,045 individuals. English Sparrow not estimated. Under the auspices of the Burroughs Club. Five groups canvassing different sections of the city as follows: Messrs. Bolt and Teachner, Forest Hill; Miss Jennie Clements, Mt. Washington Cemetery; Mr. Tyndall, Mill Creek and Country Club; Mr. Wm. Michaels and Miss Lenora Coomber, Brush Creek and Country Club; Walter Cunningham and A. E. Shirling, Swope Park. Average time in field for each group, 3 hours.—A. E. SHIRLING.

Marionville, Mo.—Dec. 25; 8 A.M. to 5 P.M.; clear; ground bare; wind very low; temp. 40° to 68°. Distance covered, about 10 miles. Wilson Snipe, 2; Bob-white, 80; Mourning Dove, 5; Sharp-shinned Hawk, 1; Cooper's Hawk, 3; Red-tailed Hawk, 4; Marsh Hawk, 2; Sparrow Hawk, 1; Short-eared Owl, 1; Screech Owl, 4; Kingfisher, 1; Pileated Woodpecker, 1; Downy Woodpecker, 12; Red-bellied Woodpecker, 4; Red-headed Woodpecker, 1; Flicker, 18; Phoebe, 1; Prairie Horned Lark, 40; Blue Jay, 16; Crow, far over 10,000; Meadowlark, 80; Rusty Blackbird, 3; Bronzed Grackle, 2; Goldfinch, 25; Field Sparrow, 20; Slate-colored Junco, 350; Swamp Sparrow, 10; White-crowned Sparrow, 6; White-throated Sparrow, 18; Cardinal, 24; Cedar Waxwing, 50; Loggerhead Shrike, 2; Mockingbird, 4; Tufted Titmouse, 20; Chickadee, 26; Winter Wren, 1; White-breasted Nuthatch, 2; Robin, 100; Bluebird, 30. Total, 40 species, about 10,980 individuals.—JOHNSON and GLADYS NEFF.

Willard (Greene Co.) Mo.—Dec. 24; 8 A.M. to 4 P.M. Clear; 45° at start, 60° on return; flies, bees, and grasshoppers were seen on the wing. About 15 miles on foot through deciduous forests (no conifers here) and fields; 3 miles on horseback on the prairie. Quail, 1; Marsh Hawk, 1; Red-tailed Hawk, 4; Kingfisher, 4; Hairy Woodpecker, 2; Downy Woodpecker, 6; Pileated Woodpecker, 3; Red-bellied Woodpecker, 5; Flicker, 4; Blue Jay, 9; Crow, 68; Meadowlark, 75+; Goldfinch, 50; Vesper Sparrow, 2; Tree Sparrow, 2; Slate-colored Junco, 77; Song Sparrow, 5; Cardinal, 20; Mockingbird, 1; Carolina Wren, 2; Brown Creeper, 1; White-breasted Nuthatch, 6; Tufted Titmouse, 23; Chickadee, 18; Bluebird, 11. Total, 25 species, 398 individuals. The Vesper Sparrows were in a meadow and both were closely observed at a distance of about 20 feet.—A. E. BROWER.

Fayetteville, Ark.—Dec. 26; 8.30 A.M. to 1 P.M. Cloudy at start, partly cloudy at finish; strong wind, southwest; ground bare; no frost; temp. 47° in the morning and 70° at finish. City limits to White River on the south, covering brush and pasture land, cultivated fields, along river in heavier timber—eight miles on foot. Observers together. Mallard, 3; Mourning Dove, 7; Red-tailed Hawk, 3; Sparrow Hawk, 1; Hairy Woodpecker, 2; Downy Woodpecker, 5; Red-bellied Woodpecker, 4; Flicker, 10; Red-winged Blackbird, 1; Blue Jay, 6; Crow, 16; Meadowlark, 17; Goldfinch, 2; Harris's Sparrow, 3; Tree Sparrow, 2; Field Sparrow, 6; Junco 109 (est.); Fox Sparrow, 3; Towhee, 1; Cardinal, 12; Cedar Waxwing, 28; Migrant Shrike, 2; Mockingbird, 5; Carolina Wren, 6; White-breasted Nuthatch, 5; Tufted Titmouse, 8; Carolina Chickadee, 7; Robin, 63; Bluebird, 22. Total, 29 species, 359 individuals.—ALBERT LANO, T. L. BATES, MR. and MRS. S. C. DELLINGER, MRS. D. H. MARKHAM, ALBERT GOY, FELIX KIMBROUGH.

Monticello, Ark.—Dec. 23; 10.15 A.M. to 2.30 P.M. Clear; wind south, very light; temp. 40° at start, 44° return. Two miles on foot. Observers together. Killdeer, 1; Dove, 10; Turkey Buzzard, 10; Black Vulture, 2; Marsh Hawk, 1; Sparrow Hawk, 2; Red-headed Woodpecker, 19; Red-bellied Woodpecker, 3; Yellow-bellied Sapsucker, 2; Pileated Woodpecker, 2; Flicker, 13; Blue Jay, 35; Cowbird, 7; Meadow Lark, 16; Purple Grackle, 300; White-throated Sparrow,

18; Junco, 16; Song Sparrow, 5; Chewink, 11; Cardinal, 14; Cedar Waxwing, 13; Loggerhead Shrike, 3; Myrtle Warbler, 1; Mockingbird, 22 (one singing); Brown Thrasher, 3; Carolina Wren, 6; Tufted Titmouse, 5; Chickadee, 2; Robin, 6; Bluebird, 7. Total, 30 species, 555 individuals.—MRS. J. T. CHAPIN, MISSES SALLIE and VIRGIE CAVANNESS.

Anniston, Ala.—Dec. 24; 7 A.M. to 5 P.M. Clear; temp. at start 39°, at finish, 58°, ideal for field work; insects, including small butterflies, in the air; bat seen hawking late afternoon; a number of species of birds in song, Brown Thrasher included. Area traversed forenoon about 1 mile radius near Oxford Lake, fields and deep woods; in the afternoon, east of and adjacent to city of Anniston, fields and ravines. The two areas are 3 miles apart. Observer alone and on foot. Eight-power field-glasses used in identifying doubtful species. Pied-billed Grebe, 1; Killdeer, 18; Bob-white, 3 (heard calling late afternoon); Mourning Dove, 4; Turkey Vulture, 1; Black Vulture, 3; Red-tailed Hawk, 1; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Barred (?) Owl, 1 (large Owl in flight in deep wood); Belted Kingfisher, 1; Downy Woodpecker, 4; Yellow-bellied Sapsucker, 3; Red-headed Woodpecker, 7; Red-bellied Woodpecker, 5; Flicker, 11; Phoebe, 4; Blue Jay, 31; Crow, 5; Meadowlark, 12; Cowbird, 26; Bronzed Grackle, 14; Purple Finch, 11; Goldfinch, 63; Pine Siskin, 5 (there is but little doubt about the correctness of this record, and incidents lead me to suspect that it is not rare in this vicinity during the winter season); Vesper Sparrow, 7; White-throated Sparrow, 55; Chipping Sparrow, 20; Field Sparrow, 45; Slate-colored Junco, 55; Song Sparrow, 56; Swamp Sparrow, 5; Fox Sparrow, 12; Towhee, 33; Cardinal, 38; Cedar Waxwing, 12; Myrtle Warbler, 5; Pipit, 13; Mockingbird, 5; Brown Thrasher, 8; Carolina Wren, 10; Brown Creeper, 1; Brown-headed Nuthatch, 4; Tufted Titmouse, 8; Carolina Chickadee, 7; Golden-crowned Kinglet, 8; Ruby-crowned Kinglet, 9; Hermit Thrush, 1; Robin, 64; Bluebird, 7. Total, 50 species, 724 individuals.—R. H. DEAN.

Barachias, Ala.—Dec. 24; 6.30 A.M. to 4.30 P.M. Partly cloudy; 38° at 6.30 A.M.—frost. Woodlands and open fields. All records, except that of the Florida Barred Owl, are positive sight identifications with a prism binocular. Census taken on foot. Wilson's Snipe, 1; Killdeer, 100; Bob-white, 16; Mourning Dove, 60; Turkey Vulture, 7; Black Vulture, 14; Marsh Hawk, 1; Red-tailed Hawk, 1; Sparrow Hawk, 1; Florida Barred Owl, 1 (heard); Southern Downy Woodpecker, 6; Yellow-bellied Sapsucker, 5; Red-bellied Woodpecker, 6; Flicker, 11; Phoebe, 5; Florida Blue Jay, 32; Crow, 1; Meadowlark, 78; Purple Finch, 4; Goldfinch, 2; Vesper Sparrow, 37; Savannah Sparrow, 58; White-throated Sparrow, 34; Chipping Sparrow, 80; Field Sparrow, 78; Slate-colored Junco, 15; Song Sparrow, 10; Swamp Sparrow, 3; Fox Sparrow, 1; Towhee, 20; Cardinal, 17; Cedar Waxwing, 15; Loggerhead Shrike, 7; Blue-headed Vireo, 1; Myrtle Warbler, 4; Pine Warbler, 7; Palm Warbler, 1; Yellow Palm Warbler, 1; Pipit, 260; Mockingbird, 12; Brown Thrasher, 7; Carolina Wren, 4; Bewick's Wren, 5; Winter Wren, 1; Brown Creeper, 3; Brown-headed Nuthatch, 6; Tufted Titmouse, 17; Carolina Chickadee, 5; Golden-crowned Kinglet, 3; Ruby-crowned Kinglet, 7; Hermit Thrush, 4; Robin, 148; Bluebird, 11. Total, 53 species, 1,234 individuals.—ERNEST G. HOLT.

Jamestown, N. Dak.—Dec. 24; 9.30 A.M. to 4 P.M. Cloudy; ½-in. snow; wind warm and light from northwest; temp. 34° to 29°. Prairie Chicken, 12; Crow, 2; Magpie, 2; Downy Woodpecker, 2 (male and female). Total, 4 species, 18 individuals. Dec. 17, 18, 19 we had 19° below zero weather, so I feel as if this accounts for not having more bird life with us.—MRS. MARJORIE GUEST.

Dell Rapids, S. Dak.—Dec. 24; 9.30 A.M. to 1 P.M. Clear; snow in spots; west wind, medium; temp. 38° at start, 44° at return. Along the dells, across fields and meadows to Big Sioux River, which was followed returning—about 7 miles on foot. Marsh Hawk, 1; Sharp-shinned Hawk, 1; Short-eared Owl, 2; Hairy Woodpecker, 3; Downy Woodpecker, 2; Northern Flicker, 1; Prairie Horned Lark, 250 (est.; 2 big flocks); Magpie, 1; Crow, 36 (small flocks); Goldfinch, 6; Tree Sparrow, 1; White-breasted Nuthatch, 2; Chickadee, 10. Total, 13 species, about 316 individuals.—EDWIN C. ANDERSON.

Fremont, Neb.—Dec. 26; 8.30 A.M. to 2.15 P.M. Mostly clear; light wind; ground bare;

temp. 25° at start, 45° at return. MacLean's Island, Hormel's Island, cemetery, and country roads. Mourning Dove, 9; Marsh Hawk, 1; Broad-winged [? Ed.] Hawk, 1; Screech Owl, 4; Hairy Woodpecker, 3; Downy Woodpecker, 12; Northern Flicker, 1; Prairie Horned Lark, 3; Blue Jay, 1; Crow, 150; Western Meadowlark, 1; Pine Siskin, 33; Goldfinch, 23; American Crossbill, 12; Tree Sparrow, 35; Slate-colored Junco, 51; Towhee, 6; Cardinal, 21; Northern Shrike, 1; White-breasted Nuthatch, 8; Brown Creeper, 7; Chickadee, 52; Golden-crowned Kinglet, 9; Robin, 26. Total, 24 species, 470 individuals.—LILY RUEGG BUTTON and NETTIE C. RUEGG.

Lincoln, Neb. (Wyuka Cemetery; Stevens Creek).—Dec. 26; 8 A.M. to 1.30 P.M. Clear; ground bare; wind north, strong; temp. 31° at start, 43° at return. Seven miles on foot. American Rough-legged Hawk, 1; Hairy Woodpecker, 5; Northern Downy Woodpecker, 6; Red-bellied Woodpecker, 1; Yellow-shafted Flicker, 2; Prairie Horned Lark, 1; Blue Jay, 1; Crow, 15; Red Crossbill, 2; Pine Siskin, 2; Tree Sparrow, 42; Song Sparrow, 2; Cardinal, 4; Brown Creeper, 8; White-breasted Nuthatch, 6; Red-breasted Nuthatch, 1; Tufted Titmouse, 3; Chickadee, 38. Total, 18 species, 140 individuals.—R. W. DAWSON, MRS. GEORGE O. SMITH, MRS. FRED W. TYLER, and MRS. GEORGE A. LOVELAND.

Plattsmouth, Neb.—Dec. 27; 8 A.M. to 4.30 P.M. Clear; ground bare; wind southeast; temp. 50°. About 10 miles on foot, along Missouri and Platte rivers and in wooded ravines. Mallard, 14; Pintail, 12; Canvasback, 5; Marsh Hawk, 1; Cooper's Hawk, 1; American Rough-leg, 1; Ferruginous Rough-leg, 1; Screech Owl, 1; Downy Woodpecker, 15; Hairy Woodpecker, 12; Red-headed Woodpecker, 1; Red-bellied Woodpecker, 2 (widely separated); Northern Flicker, 14; Red-shafted Flicker, 2; Crow, 142; Blue Jay, 9; American Crossbill, 7; Goldfinch, 1; Tree Sparrow, 14; Chipping Sparrow, 1 (unable to migrate because of broken wing); Slate-colored Junco, 47; Towhee, 1; Cardinal, 21; Brown Creeper, 1; Long-tailed Chickadee, 48; Tufted Titmouse, 1; White-breasted Nuthatch, 5; Red-breasted Nuthatch, 1; Golden-crowned Kinglet, 1. Total, 29 species, 382 individuals.—LEONARD G. WORLEY.

Hesston, Kans.—Dec. 26; 10 A.M. to 5 P.M. Cloudy; wind north, strong; temp. 36°. Fifteen miles on foot, 8 miles along West and Middle Emmet creeks, 7 miles across meadows and wheat-fields and along osage orange hedge fences. Observers together. Hawks, 8 (at least 2 species, not identified); Hairy Woodpecker, 2; Downy Woodpecker, 1; Prairie Horned Lark, 50; American Crow, 167; Meadowlark, 2; Harris's Sparrow, 99; Tree Sparrow, 142; Slate-colored Junco, 17; Song Sparrow, 11; Cardinal, 70; Black-capped Chickadee, 26. Total, 13 species, 595 individuals. Also English Sparrow, 6. Seen within the last week: 1 White-rumped Shrike and a crippled Brown Thrasher.—EDWARD YODER and PAUL BENDER.

Topeka, Kans.—Dec. 27; 9.25 to 11.25 A.M. and 1.30 to 5.30 P.M. Partly cloudy in forenoon; clear in afternoon; north wind; ground bare; ponds and creeks with remains of ice covering; temp. 26° at start, 40° at return. Covered about 26 miles in car and on foot. Wooded creeks and prairies south and west of town. Observers together most of the time. Bob-white (heard unmistakably) 1; Mourning Dove, 2; Sharp-shinned Hawk, 1; Hairy Woodpecker, 8; Downy Woodpecker, 8; Red-bellied Woodpecker, 8; Flicker, 2; Blue Jay (heard, unmistakably) 1; Crow, 6; Harris's Sparrow, 10; Tree Sparrow, 14; Slate-colored Junco, 18; Song Sparrow, 8; Towhee, 1; Cardinal, 10; Brown Creeper, 2; White-breasted Nuthatch (heard) 1; Tufted Titmouse, 15; Chickadee, 20; Ruby-crowned Kinglet, 4; Bluebird, 8. Total, 21 species, 148 individuals.—RUTH MARY PRICE, INA MARY HARKINS, KELSIE HOBBS, ELIZABETH A. SMITH, MRS. J. G. WOOD, and ROBERT H. KINGMAN.

Norman, Okla.—Dec. 23; 8.30 A.M. to 5 P.M. Clear; ground bare; wind south, light; temp. 33° at start, 60° at return. Ten miles on foot. Wilson Snipe, 3; Mourning Dove, 8; Cooper's Hawk, 1; Red-tailed Hawk, 1; Rough-legged Hawk, 3; Hairy Woodpecker, 4; Downy Woodpecker, 9; Red-bellied Woodpecker, 3; Flicker, 32; Red-shafted Flicker, 5; Blue Jay, 3; Crow, 350; Red-winged Blackbird, 2,000 (a very conservative estimate); Meadowlark (Eastern and Western), 137; Brewer's Blackbird, 200; Goldfinch, 66; Pine Siskin, 2; Savannah Sparrow, 2; Harris's Sparrow, 218; White-crowned Sparrow, 2; Tree Sparrow, 8; Field Sparrow, 20; Junco, 36; Song Sparrow, 78; Fox Sparrow, 20; Arctic Towhee, 10; Cardinal, 41; Cedar Wax-

wing, 6; White-rumped Shrike, 1; Myrtle Warbler, 1; Mockingbird, 2; Carolina Wren, 7; Texas Wren, 5; Winter Wren, 1; Tufted Titmouse, 8; Chickadee, 38; Robin, 9; Bluebird, 15. Total, 39 species, about 3,350 individuals.—MARGARET M. NICE.

Boulder, Colo.—Dec. 22; 7:30 A.M. to 1:40 P.M. Clear; wind west, very strong in P.M.; temp. 50° at start, 58° at return. Five miles on foot along foothills close to city. Observers together. Rocky Mountain Hairy Woodpecker, 2; Red-shafted Flicker, 6; Magpie, 13; Long-crested Jay, 12; Redpoll, 2; White-winged Junco, 5; Slate-colored Junco, 25; Shufeldt's Junco, 75; Pink-sided Junco, 125; Gray-headed Junco, 75; Mountain Song Sparrow, 3; Long-tailed Chickadee, 1. Total, 12 species, 344 individuals.—CLARIBEL KENDALL and EDNA L. JOHNSON.

Boulder, Colo.—Dec. 25; 7:30 A.M. to 5 P.M. Partly cloudy; ground bare; east winds; temp. 28° to 42°. South to South Boulder Peak, east to Base Line Lake, and return via Boulder Creek—about 17 miles on foot. Pheasant, 24; American Rough-legged Hawk, 1; Batchelder Woodpecker, 1; Lewis Woodpecker, 1; Red-shafted Flicker, 2; Prairie Horned Lark, 5; Desert Horned Lark, 1; Black-billed Magpie, 26; Red-winged Blackbird, 12; House Finch, 11; Redpoll, 38; Chestnut-collared Longspur, 15; Harris's Sparrow, 12; Western Tree Sparrow, 58; Slate-colored Junco, 25; Shufeldt Junco, 22; Montana Junco, 34; Pink-sided Junco, 42; Dipper, 1. The Pink-sided and Montana Juncos could not be separated with certainty as the flocks were mingled. Total, 19 species, 331 individuals. Also English Sparrow, 16.—THEODORE R. BEARD.

Denver, Colo.—Dec. 25; 9 to 10 A.M. on foot, 2:30 to 5 P.M. by motor. Ground bare; partly cloudy A.M., cloudy and cold P.M., no wind early, later, north; temp. 55° to 60° in A.M. Ring-necked Pheasant, 11; American Rough-legged Hawk, 1; Ferruginous Rough-legged Hawk, 1; Sparrow Hawk, 1; Screech Owl, 1; Great Horned Owl, 2; Lewis's Woodpecker, 1; Flicker, 5; Horned Lark, 12; Magpie, 50; Meadowlark, 14; Red-winged Blackbird, 150; House Finch, 12; Crossbill, 1; Tree Sparrow, 2; Slate-colored Junco, 1; Shufeldt's Junco, 3; Montana Junco, 2; Pink-sided Junco, 1; Grey-headed Junco, 7; Song Sparrow, 3; Great Northern Butcher-bird, 1; Long-tailed Chickadee, 4; Slender-billed Nuthatch, 1; Red-breasted Nuthatch, 1; Robin, 6. Total, 25 species, about 300 individuals.—W. H. BERGTOLD.

Denver, Colo.—Dec. 20; 7:45 to 11:45 A.M., 12:15 to 5:15 P.M. Clear, ground bare; wind south, light; temp. 26° at start, 50° at return. On foot, four hours in City Park, five hours along Sand Creek. Wilson Snipe, 2; Killdeer, 3; Ring-necked Pheasant, 8; Western Mourning Dove, 1; Pigeon Hawk, 1; Batchelder Woodpecker, 1; Red-shafted Flicker, 11; Desert Horned Lark, 15; Magpie, 80; Thickbilled Redwing, 7,500; Western Meadowlark, 5; Brewer's Blackbird, 12; House Finch, 46; Western Tree Sparrow, 53; Slate-colored Junco, 2; Shufeldt's Junco, 1; Montana Junco, 5; Pink-sided Junco, 11; Mountain Song Sparrow, 20; Northern Shrike, 1; Rocky Mountain Creeper, 3; Long-tailed Chickadee, 6; Western Robin, 1. Total, 23 species, about 7,800 individuals. I watched the Pigeon Hawk for an hour and counted the four white tail bands with 8-power binoculars at a distance of twenty yards. A Western Golden-crowned Kinglet in City Park on Dec. 19 was an unusual record.—THOMPSON G. MARSH.

Fort Morgan, Colo.—Dec. 25; 8 A.M. to 1 P.M. Partly cloudy, bare ground; light west wind; temp. 35° at start, 52° at return. South Platte River bottoms from mouth of Bijou Creek to Narrows Bridge, returning along Lincoln Highway. Seven miles on foot. American Merganser, 1; Mallard, 6; American Golden-eye, 4; Great Blue Heron, 1; Wilson Snipe, 3; Bob-white, 24 (2 coveys); Ring-necked Pheasant, 5; Mourning Dove, 1; Belted Kingfisher, 4; Red-shafted Flicker, 7; Desert Horned Lark, 22; Magpie, 42; Red-winged Blackbird, 2,000 (est.); Western Meadowlark, 6; Western Chipping [? Ed.] Sparrow, 22; Pink-sided Junco, 500 (est.); Red-breasted Nuthatch, 1; Long-tailed Chickadee, 26; Townsend's Solitaire, 1. Total, 19 species, about 2,700 individuals.—EDWARD HELSTERN.

Grand Junction, Colo.—Dec. 23; 7:30 A.M. to 4:30 P.M.; Clear; no snow on ground in valley; wind, light, west A.M.; east, P.M.; temp. 22° at start, 39° at noon, 41° at return. Trip south

and west of the city along the Colorado and Gunnison Rivers and back by way of the city cemetery—six miles on foot. Mallard Duck, 17; Killdeer, 5; California Quail, 40; Red-tailed (?) Hawk, 1; Sparrow Hawk, 4; Hairy Woodpecker, 1; Lewis Woodpecker, 4; Red-shafted Flicker, 25; Horned Lark, 2; Magpie, 4; Red-winged Blackbird, 60; Western Meadowlark, 25; Cassin's Finch, 500; House Finch, 10; Pale Goldfinch, 12; Pine Siskin, 2; Gambel's Sparrow, 2; Tree Sparrow, 1; Shufeldt's Junco, 15; Pink-sided Junco, 30; Mountain Song Sparrow, 100; Shrike, 1. Total, 22 species, about 800 individuals. The Goldfinch is not an unusual record here because of our mild winters. I have observed it for past five winters.—ADA B. COPELAND.

Superior, Ariz.—Dec. 24; 9.30 A.M. to 5.30 P.M. Clear; no wind; temp. 65°. From a mile below town on the desert, elevation 2,700 feet, to 4 miles up Queen Creek Canyon, elevation 4,000 feet. Observers together; 6-power binoculars used. Killdeer, 4; Gambel's Quail, 25; Sparrow Hawk, 1; Texan Woodpecker, 2; Red-naped Sapsucker, 2; Gila Woodpecker, 4; Red-shafted Flicker, 8; Say's Phoebe, 3; Black Phoebe, 12; Green-backed Goldfinch, 1; Gambel's Sparrow, 126; Oregon Junco, 45; Pink-sided Junco, 6; Red-backed Junco, 3; Desert Sparrow, 55; Rufous-winged Sparrow, 8; Scott Sparrow, 3; Oregon Towhee, 2; Canyon Towhee, 28; Arizona Cardinal, 3; Lark Bunting, 12; White-rumped Shrike, 1; Palmer Thrasher, 32; Cactus Wren, 40; Rock Wren, 12; Canyon Wren, 48; Baird Wren, 5; Slender-billed Nuthatch, 5; Bridled Titmouse, 7; Mountain Chickadee, 3; Verdin, 6; Ruby-crowned Kinglet, 9; Western Gnatcatcher, 6; Townsend Solitaire, 5; Western Robin, 1; Chestnut-backed Bluebird, 30. Total, 40 species, about 600 individuals. English Sparrow, 15.—C. D. BATTLES and H. T. KIMBALL.

Olympia, Wash. (Olympia to Priest Point Park).—Dec. 26; 7.30 A.M. to 4.30 P.M. Rain most of day in steady drizzle, wind south, light; temp. 50° to 58° (close estimate). Western Grebe, 2; Horned Grebe, 70; Glaucous-winged Gull, 50; Short-billed Gull, 100; Red-breasted Merganser, 40; Canvasback, 20; Scaup, 200; American Golden-eye, 80; Bufflehead, 1; White-winged Scoter, 200; Ruddy Duck, 2; Fannin's Heron, 1; Coot, 25; Wilson's Snipe, 3; Oregon Ruffed Grouse, 2; Ring-necked Pheasant, 3; Belted Kingfisher, 2; Gairdner's Woodpecker, 1; Northwestern Flicker, 20; Steller's Jay, 1; Northwest Crow, 60; Northwest Redwing, 10; Brewer's Blackbird, 100; California Purple Finch, 1; Pine Siskin, 2; Oregon Junco, 150; Rusty Song Sparrow, 40; Oregon Towhee, 5; Townsend's Warbler, 1; Seattle Wren, 16; Western Winter Wren, 60; California Creeper, 8; Red-breasted Nuthatch, 1; Oregon Chickadee, 5; Chestnut-backed Chickadee, 50; Western Golden-crowned Kinglet, 100; Sitkan Kinglet, 15; Western Robin, 3. Total, 38 species, roughly 1,500 individuals.—THOR MCKNIGHT.

Olympia, Wash.—Dec. 24; 9 A.M. to 4.30 P.M.; stormy, strong south gale and driving rain for last 24 hours, continuing all day, except for brief interval in afternoon; temp. at start 50°, at return 45°. Walk along waterfront, then alternately in car and walking the remainder of the day, covering wooded country and prairie over radius of 16 miles. Two observers, together. Western Grebe, 1; Horned Grebe, 18; Glaucous-winged Gulls, 200 (est.); Western Gull, 50 (est.); Herring Gull, 100 (est.); California Gull, 50 (est.); Red-breasted Merganser, 2; American Scaup Ducks, 1,000 (est.); American Golden-eye Duck, 200 (est.); American Coot, 5; California Quail, 10; Chinese Pheasant, 7; Ruffed Grouse, 1; Large Hawk, 1; Sparrow Hawk, 1; Red-shafted Flicker, 8; Steller Jay, 2; Northwestern Crow and Fish Crow, 50; Shufeldt's Junco, 3; Rusty Song Sparrow, 13; Seattle Wren, 5 (1 singing); Western Winter Wren, 16; Oregon Chickadee, 9; Chestnut-backed Chickadee, 11; Golden-crowned Kinglet, 13; Ruby-crowned Kinglet, 9; Varied Thrush, 2. Total, 27 species.—MARGARET MCKENNY and JOHN M. WILSON.

Seattle, Wash.—Dec. 24; 9 A.M. to 3.30 P.M. Raining all day; ground bare; southwest gale, 49 miles per hour at height; temp. 52° at start, 49° at finish. Observers as indicated: Renton Slough—F. W. Cook; Lake Union Shore—J. W. Parker and Mrs. M. Schuler; West Seattle—Mrs. J. A. Kent. Western Grebe, 1; Pied-billed Grebe, 1; Glaucous-winged Gull,

1,308; California Gull, 131; Short-billed Gull, 3; Herring Gull, 1; Mallard Duck, 379; Green-winged Teal, 20; Cinnamon Teal, 1; Shoveler, 40; Pin-tail, 573; Canvasback, 2; Scaup, 168; Ruddy Duck, 10; Northwest Coast Heron, 1; Coot, 177; California Quail, 27; Ring-necked Pheasant, 9; Marsh Hawk, 1; Sparrow Hawk, 2; Saw-whet Owl, 6; Northwest Belted Kingfisher, 1; Northwest Flicker, 8; Western Crow, 36; Western Meadowlark, 10; California Purple Finch, 4; Pine Siskin, 109; Shufeldt's Junco, 22; Rusty Song Sparrow, 78; Fox Sparrow, 7; Oregon Towhee, 28; Seattle Wren, 3; Western Wren, 4; Oregon Chickadee, 27; Chestnut-backed Chickadee, 9; Western Golden-crowned Kinglet, 6; Western Robin, 62; Varied Thrush, 5. Total, 38 species, 3,280 individuals.—MRS. C. N. COMPTON.

Yakima, Wash. (Fruitvale District).—Dec. 21; 9.30 A.M. to 4 P.M. Foggy to sunshine; no wind; temp. 23° at start, 25° at return. Seven miles on foot. Observers together. Bob-white, 10; Valley Quail, 130; Hungarian Partridge, 7; Chinese Pheasant, 29; Sharp-shinned Hawk, 3; Pigeon Hawk, 1; Owl, 2; Kingfisher, 2; Downy Woodpecker, 2; Flicker, 19; Horned Lark 44; Magpie, 20; Purple Finch, 155; White-crowned Sparrow, 31; Junco, 256; Song Sparrow, 80; Bohemian Waxwing, 95; Shrike, 1; Chickadee, 29; Kinglet, 1. Total, 20 species, 918 individuals.—J. HOWARD WRIGHT and J. M. GLEASON.

Monmouth, Ore.—Dec. 23; 8.30 to 10.30 A.M. and 1 to 3 P.M. Rain all day; south wind, light; temp. 52° at start, 56° at return. About 5 miles on foot. Killdeer, 8; Bob-white, 1; Desert Sparrow Hawk, 1; Belted Kingfisher, 1; Red-shafted Flicker, 4; Northwestern Crow, 3; Western Meadowlark, 34; Brewer's Blackbird, 27; Willow Goldfinch, 21; Pine Siskin, 5; Gambel's White-crowned Sparrow, 10; Oregon Junco, 26; Rusty Song Sparrow, 4; Oregon Towhee, 1; Sierra Creeper, 1; Slender-billed Nuthatch, 4; Oregon Chickadee, 3; Western Golden-crowned Kinglet, 4; Varied Thrush, 25; Western Bluebird, 4. Total, 20 species, 187 individuals. Also English Sparrow, 4. The Varied Thrushes and Kinglets are more common than usual.—CECIL A. POOLE.

Portland, Ore.—Dec. 24; 8.30 A.M. to 4 P.M. Light rain most of day; south wind, light; temp. average 52°. Observers together. Pied-billed Grebe, 1; Ring-billed Gull, 72; Herring Gull, 90; California Gull, 8; Glaucous-winged Gull, 50; Hooded Merganser, 6; Mallard, 5; Baldpate, 62; Green-winged Teal, 6; Shoveler, 2; Pintail, 6; Scaup, 65; Bufflehead, 6; Great Blue Heron, 3; Coot, 25; California Quail, 17; Ring-necked Pheasant, 6; Desert Sparrow Hawk, 1; Belted Kingfisher, 1; Red-shafted Flicker, 4; Western Crow, 40; Pine Siskin, 2; Oregon Junco, 30; Rusty Song Sparrow, 10; Townsend's Fox Sparrow, 3; Oregon Towhee, 5; Cedar Waxwing, 1; Western Winter Wren, 1; Oregon Chickadee, 16; Chestnut-backed Chickadee, 8; Golden-crowned Kinglet, 16; Ruby-crowned Kinglet, 18; Western Robin, 5; Varied Thrush, 12. Total, 33 species, 609 individuals. Also English Sparrow, 10.—MRS. MAMIE CAMPBELL, MARY E. RAKER, W. A. ELIOT, and W. S. RAKER.

Los Angeles, Calif.—Dec. 20; 7 A.M. to 4.30 P.M. Clear; wind northeast, light; cloudless sky; temp. 53° at start, 68° at return. City parks: (West Lake, Griffith, Echo Lake, Sycamore Grove, Eagle Rock) and the San Gabriel Mill. To destination by trolley; about 30 miles on foot. Observers in four parties of twos. Pied-billed Grebe, 14; Glaucous-winged Gull, 1; California Gull, 50; Ring-billed Gull, 25; Farallon Cormorant, 8; White Pelican, 3; Mallard, 9; Baldpate, 3; Pintail, 5; Lesser Scaup Duck, 53; Black-crowned Night Heron, 3; American Coot, 204; Killdeer, 21; Valley Quail, 49; Band-tailed Pigeon, 57+ (2 flocks); Western Mourning Dove, 2; Sharp-shinned Hawk, 4; Cooper's Hawk, 1; Western Redtail, 1; Desert Sparrow Hawk, 10; Nuttall Woodpecker, 2; Red-Naped Sapsucker, 1; California Woodpecker, 25; Lewis Woodpecker, 1; Red-shafted Flicker, 37; Anna Hummingbird, 21; Say's Phoebe, 2; Black Phoebe, 21; California Jay, 69; Western Meadowlark, 10; Brewer's Blackbird, 600 (flocks of 10 to 100); California Purple Finch, 14; House Finch, 245; Willow Goldfinch, 6; Green-backed Goldfinch, 80; Western Lark Sparrow, 3; Gambel's Sparrow, 69; Golden-crowned Sparrow, 10; Thurbur Junco, 29; San Diego Song Sparrow, 50; San Diego Towhee, 22; Anthony Towhee, 85; Phainopepla, 5; California Shrike, 16; Hutton Vireo, 4; Dusky Warbler, 2; Audubon Warbler, 125; Tule or Western Yellow-throat, 1; Western Mockingbird, 45; California Thrasher,

12; Dotted Canyon Wren, 1; San Diego Wren, 5; Western House Wren, 2; Red-breasted Nuthatch, 3; Plain Titmouse, 27; California Bush-Tit, 184 (flocks of 15 to 35); Pallid Wren-Tit, 29; Ruby-crowned Kinglet, 28; Western Gnat-catcher, 18; Alaska Hermit Thrush, 8; Western Robin, 32; Western Bluebird, 3. Total, 62 species, about 2,465 individuals. Also English Sparrow, 24. The birds in Griffith Park were few in number, due to the noise and shooting of a movie company making pictures. From 1 to 6 Blue-fronted Jays were reported there just the day previous.—MRS. FRANCES B. SCHNEIDER, MRS. BERTHA ANTHONY. MRS. ELLA H. ELLIS, MRS. ARTHUR J. MIX. BLANCHE VIGNOS, JESSICA POTTER, MARY MANN MILLER, ELIZABETH BURNELL.

San Diego, Calif.—Dec. 24; 7.30 A.M. to 4.30 P.M. Sunshine; average temp. 55°. Water-front and various points inland within 15 mile air radius. Observers in two parties, each with use of automobile; 102 species observed by one of the parties. Western Grebe, 5; Eared Grebe, 71; Pied-billed Grebe, 4; Common Loon, 3; Pacific Loon, 4; Glaucous-winged Gull, 7; Western Gull, 1,265; California Gull, 296; Ring-billed Gull, 50; Bonaparte's Gull, 1; Royal Tern, 1; Forster's Tern, 26; Farallon Cormorant, 28; Brandt Cormorant, 15; California Brown Pelican, 14; Red-breasted Merganser, 1; Mallard, 5; Widgeon, 80; Green-winged Teal, 5; Cinnamon Teal, 3; Shoveler, 51; Pintail, 51; Redhead, 5; Canvasback, 10; Lesser Scaup Duck, 203; Bufflehead, 100; Surf Scoter, 51; Ruddy Duck, 13; American Bittern, 1; Great Blue Heron, 4; Egret, 10; Snowy Egret, 2; Black-crowned Night Heron, 9; Light-footed Rail, 1; Virginia Rail, 1; American Coot, 203; Long-billed Dowitcher, 6; Least Sandpiper, 127; Red-backed Sandpiper, 54; Western Sandpiper, 78; Sanderling, 6; Marbled Godwit, 226; Greater Yellowlegs, 14; Western Willet, 490; Spotted Sandpiper, 8; Long-billed Curlew, 2; Hudsonian Curlew, 9; Black-bellied Plover, 28; Killdeer, 66; Valley Quail, 10; Mourning Dove, 6; Sharp-shinned Hawk, 4; Cooper's Hawk, 4; Red-tailed Hawk, 5; Red-bellied Hawk, 1; Rough-legged Hawk, 2; Ferruginous Rough-leg, 1; Golden Eagle, 1; Sparrow Hawk, 12; Barn Owl, 1; Burrowing Owl, 3; Roadrunner, 5; Belted Kingfisher, 1; Nuttall's Woodpecker, 1; Red-shafted Flicker, 6; Anna Hummingbird, 5; Cassin's Kingbird, 7; Say's Phoebe, 33; Black Phoebe, 21; California Horned Lark, 6; California Jay, 2; Raven, 1; San Diego Red winged Blackbird, 615; Western Meadowlark, 146; Brewer Blackbird, 1,330; House Finch, 255; Green-backed Goldfinch, 15; Western Vesper Sparrow, 4; Western Savannah Sparrow, 10; Belding's Sparrow, 23; Large-billed Sparrow, 1; Western Lark Sparrow, 5; Gambel's Sparrow, 92; Golden-crowned Sparrow, 20; Bell Sparrow, 13; Rufous-crowned Sparrow, 2; San Diego Song Sparrow, 8; Lincoln's Sparrow, 1; Anthony's Towhee, 15; San Diego Towhee, 2; Tree Swallow, 200; California Shrike, 25; Dusky Warbler, 1; Audubon's Warbler, 145; Tule Yellow-throat, 1; Pipit, 70; Western Mockingbird, 22; California Thrasher, 2; Cactus Wren, 4; San Diego Wren, 1; Western House Wren, 2; Tule Wren, 3; Plain Titmouse, 2; Pallid Wren-Tit, 16; California Bush-Tit, 22; Ruby-crowned Kinglet, 6; Western Gnatcatcher, 3; Black-tailed Gnatcatcher, 2; Hermit Thrush (subsp.?) 1; Western Robin, 1; Western Bluebird, 44; Mountain Bluebird, 2. Total, 112 species; about 6,983 individuals. Also English Sparrow, 12.—CLINTON G. ABBOTT, A. W. ANTHONY, F. BLONDELL, N. T. CLARKE, L. M. HUEY and CARROLL DEWILTON SCOTT.

THE SEASON

Edited by J. T. NICHOLS

XXXV. October 15 to December 15, 1922

BOSTON REGION.—The autumn was mild and lasted nearly to December, the first snow falling on November 27. Since then the season has been typical of early winter, cold with snow-covered ground.

The latter part of the autumnal migration was made notable by the great number of Hermit Thrushes which passed through in the month following mid-October. During walks in the country at this season, half a dozen or even a dozen birds might be found in almost every suitable shelter. The migration of Golden-crowned Kinglets mentioned in the last Boston report was also remarkable and is still conspicuous; the little birds have been present in such numbers and are so well distributed through the countryside that bird-students have had an unusual opportunity to become familiar with one of our most attractive winter birds. Sometimes, in the larger flocks, a few of the birds, by a display of their crown feathers during an interesting courting maneuver, showed clearly the difference in plumage between the sexes.

The Pine Siskins were common during late October and November, but apparently have passed onward and will not spend the winter here. With the exception of a flock or two of Red Crossbills and one "large flock of Evening Grosbeaks in Bristol County on December 10" (Forbush, "Notes for Observers," December 15), none of the irregular winter visitors has been reported—no Pine Grosbeaks, or Redpolls and very few Shrikes. Land birds in general are scarce in the country, but Juncos and Tree Sparrows are still here, in goodly numbers. Gunners report a poor flight of Canada Geese, which may possibly be explained by the birds having followed a more seaward route than usual, due to the westerly wind prevailing during their period of passing New England. The bird was rare in the interior and uncommon along the coast. Dr. C. W. Townsend finds at Ipswich, Mass., a fairly good representation of the winter sea birds. He considers the

flight of Horned Grebe above the normal numbers.

As an indication of the success of the New England Bird-Banding Association, I quote from notes kindly furnished by the treasurer, Lawrence B. Fletcher. Ninety-five species of birds are represented in the 4,000 to 5,000 individuals banded during 1922. Among the more interesting species to be banded were Ruby-crowned Kinglet, Hummingbird, Grasshopper, Henslow's and White-crowned Sparrow, Brown Creeper, and Blue-winged Warbler. Mrs. W. H. Herrick, of Topsfield, Mass., has trapped birds in an ordinary Canary cage. Mr. Aaron C. Bagg, of Holyoke, Mass., who during last February and March banded 55 Tree Sparrows, saw in his yard on the 4th of the present month two Tree Sparrows wearing bands. One bird was trapped and was found to be one of the 55—a striking instance of the return to an exact locality after the breeding season.

Mr. Forbush's "Warning" this month is (*loc. cit.*) "Look out for OWLS: Snowy, Great Horned, Hawk, Richardson's, Acadian, Long-eared and Short-eared. All are moving."—WINSOR M. TYLER, *Lexington, Mass.*

NEW YORK REGION.—The trees lost their leaves about November 1, but through November the fall continued an open one, and it was not until December that drops of the mercury—to around 20°, alternating with snow and rain flurries, gave notice that the weather had passed from the influence of the sun to that of winter storms.

Golden-crowned Kinglets were more than usually numerous and Winter Wrens less than usually scarce in this region. The departure of a species which winters in small numbers in many places, like the Flicker, is not always easy of determination, and it is therefore of interest that the last one was seen flying over Garden City, Long Island, on October 31.

As fall birds ebbed away southward before approaching winter, here and there one lingering beyond its usual date bore evidence that this was a mild year. The following have been noticed by the writer at Garden City: Catbird, November 2; a Thrasher seen on November 26, 30, December 3, and 17 is a bird which will probably winter, and a Hermit Thrush seen on December 3 and 19, may do so; a well marked migration of Robins continued through the first half of December, a small flock on December 6, and single individuals to date having been noted; a small flock of Meadowlarks, December 8, were probably on the move; the species was frequent before that date and has been rare or absent since; a flock of three Cowbirds in gray plumage was noted December 17.

A single Laughing Gull reported near Glen Cove on Long Island Sound, October 29 (L. B. Hunt), is late.

An occasional Towhee sometimes winters in the Englewood, N. J., section. One is reported still present at Demarest, December 19 (B. S. Bowdish).

There was a more than usually marked flight of Siskins on Long Island. At Garden City the first small flock was noted on October 21; they became numerous on November 6, more abundant on November 7, and on November 10 were falling off in numbers and mixed with Goldfinches. They were numerous at Mastic on November 11, flying west near the edge of the woodland one-half mile or more back from the bay, with a few Goldfinches. The following day the Goldfinches were in equal number but the Siskins were gone, with the exception of two or three in a flock of Red Crossbills encountered a mile or so further back, where the deciduous growth gives place to pitch pine. Since mid-November at Garden City only an occasional single Siskin has been seen, the last December 8. A Snowy Owl has been sent in from Long Island and one was reported at Englewood N. J., November 4 (F. M. Chapman).

Local bird banders have furnished further evidence of individual Sparrows (of three species) returning to the same winter quarters. On November 6, M. S. Crosby, at Rhinebeck, N. Y., recaptured a banded Junco (No. 27137) first trapped January 21,

February 24, and March 19, 1920. The following winter it failed to register at his station, but was again taken January 23 and February 3, 1922. R. H. Howland's 'Winter' Song Sparrow at Montclair, N. J. (No. 44699) has registered again this winter, December 7. B. S. Bowdish reports two Tree Sparrow returns from Demarest, N. J.: one (No. 6966), banded January 30 last, was retaken December 9, and several times since; another (No. 6996), banded February 19 last, was retaken December 18.—J. T. NICHOLS, *New York, N. Y.*

PHILADELPHIA REGION.—The 'Season' just passed was the driest on record. Wells and streams have gone dry, factories have been forced to temporarily close for lack of water; brush and forest fires have been prevalent. Mild weather has also been the rule. On November 21, at Cape May, N. J., golden-rod and sea pink were in bloom, and butterflies, dragonflies, black and garter snakes were noted. On December 3, golden-rod was still in bloom at Brigantine, N. J. Skim ice formed November 25; first snow fell December 10.

Probably the most striking feature of the period was the unusual abundance of Bluebirds and Pine Siskins. Migrant Bluebirds appeared in numbers about November 1 and continued extremely common up to November 10. Siskins first appeared the last week in October and were still numerous November 26, though the bulk had passed on. At Cape May on November 12, flocks of 10 to 200 were observed passing down the coast at intervals all day. Very few of these birds were seen other than in the air flying south. On this date six Barn Swallows were noted.

A large flock of Bonaparte Gulls was observed off Cape May Point, going through some rather remarkable aerial exploits; the whole flock was first seen resting on the water, then with one accord all took wing and flew up the coast for a quarter of a mile, when suddenly they commenced to pitch headlong, twisting and turning to alight on the surface of the water. Here they remained quietly for some ten minutes, then all rose and flew down the coast to the point where they had first been seen, only to go through the same evolutions as before. Previous to

settling, this performance was repeated several times while the birds were under observation. Near sundown a Raptor (Duck Hawk?) bore down on a small group of Bonaparte Gulls and succeeded in separating one Gull from its associates. A most interesting dodging match then occurred in which the Hawk was outmatched at every turn and forthwith soared off, leaving the Gull to join its companions without further harassing.

On a stretch of beach two miles long, Cape May, November 7, seven dead Scoters were found, six of which were 'oiled' birds.

Other records of interest are: 10 White-winged Scoters, Fish House, N. J., November 12; 2 Gannets, Cape May, N. J., November 7. Bittern, 2 Short-eared Owls, and numbers of Sharp-tailed and Seaside Sparrows, Brigantine Beach, N. J., December 3 (D. E. Culver and J. K. Potter).—JULIAN K. POTTER, *Camden, N. J.*

WASHINGTON REGION.—Continued relatively mild weather during October and November, 1922, in the region about Washington, D. C., had comparatively little decided effect on bird movements. A few species remained later in the autumn than is their wont, such as the Ruby-crowned Kinglet, which was noted on November 12, but which usually disappears about November 9; and the Wood Pewee, seen on October 1, the average departure of which is September 20. Two others were observed later than ever before: the Vesper Sparrow, which was reported on December 1, at Sandy Spring, Md., by Dr. A. K. Fisher, and the Black-poll Warbler, seen on November 14, at Dyke, Va., the average departure date of which is October 12, and the very latest previous record, October 26, 1908. The latter species was seen also on October 19.

On the other hand, several birds put in their autumn appearance somewhat earlier than usual, as is evident from the following data:

The Canada Goose came during the week of October 8, though its average autumn appearance is October 20; the Tree Sparrow appeared on October 14, against a previous average of November 8, and a previously earliest record of October 3, 1859; the Yellow

Palm Warbler was observed by Miss Katharine H. Stuart also on October 14, while its average autumn appearance is October 20, and the very earliest previous record October 5, 1888; the Hermit Thrush came four days ahead of time on October 14, and the Brown Creeper likewise early on October 1. White-winged Scoters were found by Talbott Denmead at Sandy Point on the Magothy River in Anne Arundel County, Md., on October 8, 1922, and the Surf Scoter by F. M. Angelo at Governor's Run, Calvert County, Md., on November 4, 1922.

Several Pine Siskins were seen near Dyke on November 14, part of the time in company with American Goldfinches, but no others have been reported.

Perhaps the mild weather had something to do with the late singing of certain species, such as the Bluebird on November 9 and 14, the Song Sparrow on the same dates, the Ruby-crowned Kinglet on October 14, and the Fox Sparrow on November 14.

The localities suitable for shore birds and other water birds in the immediate vicinity of Washington are becoming more and more restricted, and birds of this kind were not particularly numerous in this region during the present autumn. The greater Yellow-legs was found near the city on October 19, though but few other allied species were noted. The Potomac River some distance below Washington has received its usual influx of winter Ducks, and they seem to be as abundant as usual at this time of the year.—HARRY C. OBERHOLSER, *Biological Survey, Washington, D. C.*

BERLIN (OHIO) REGION.—The generally warm and fair weather which we have been enjoying this fall has continued almost without a break up to the present, with the exception of the latter part of November. The first snowstorm came on November 20, but being warm and moist melted about as soon as it struck the ground. It snowed a little every day following until November 28, when about an inch of snow covered the ground. However, this had all disappeared by Thanksgiving night and there was no more snow until December 13 and 14, from five to six inches falling on the 14th.

The water bird migration this fall has not been very pronounced, as only a few scattering records have been obtained. One record is of interest, that of three Double-crested Cormorants seen flying over the marshes at Oak Point on October 16. These birds are of only casual occurrence in this region. On October 22 a few Blue-winged Teal and Coots were seen. Black Ducks were found on November 15.

On October 20 the last Cape May Warbler was found. October 22 marks the last appearance of Phoebe, Magnolia and Myrtle Warblers, Towhee, Vesper Sparrow, and Long-billed Marsh Wren. The Chimney Swift departed on October 24 and October 29 marked the departure of Bluebirds, Mourning Doves, and Fox Sparrows. The last of the migrant Song Sparrows and Meadowlarks were seen on November 5, and the last Bronzed Grackles on November 10. Killdeers, Red-winged Blackbirds, and Golden-crowned Kinglets have not been seen since November 11. Although the snow during the latter part of the month drove most of the Robins and Crows south, a number remained. Crows were quite common on December 2, and Robins were frequently seen in small numbers within the city limits as late as December 12. However, it is quite probable that the following cold weather drove them south.

It may be interesting to note how tame the Pheasants have become around Oberlin. On several occasions this fall they have come into gardens and to front lawns, causing a great deal of excitement for the time being. They do not seem readily alarmed at the sight of human beings, for they allow a close approach without becoming disturbed. A number of these game birds have been liberated around Oberlin but have not as yet become very commonly distributed.

The finding of two Great Horned Owls on December 2 is worthy of note, since they are uncommon residents in this region.—S. CHAS. KENDEIGH, *President of Cardinal Ornithological Club, Oberlin, Ohio.*

CHICAGO REGION.—The late autumn brought no severe storms and the temperature was rather higher than normal, until the

past week when a cold wave has brought snow and near-zero temperatures.

During the A. O. U. meeting here several records of interest were made. On October 23, at Lincoln Park, Mr. Leopold and the writer found at least 18 Franklin's Gulls in the large flock of Bonaparte's and Ring-billed Gulls. A positive record was made by Messrs. Woodruff, Sanborn, and Leopold on October 26. After securing permission from the proper authorities, a daybreak expedition was made to the park, and a beautiful specimen in the adult plumage was taken. The skin is now in Mr. Leopold's collection. One or two birds of this species remained until November 19.

Snow Geese were seen on October 23 (two flocks of about 30 each), and again at Beach on October 26. In the last named flock, reported by Mr. Julian K. Potter, one Blue Goose was identified.

Semipalmated Plover were seen at Lincoln Park on October 28, and Red-backed Sandpipers the same day. Killdeers at Glen Ellyn were last seen November 2, and the Wilson's Snipe on November 13 (Mr. Gault).

Harris's Sparrow seems to be on the increase in fall migrations here. During this fall specimens were taken at Beach and on the lake shore north of Chicago (Sanborn and Leopold). Sight records of this bird are from the Dunes and from Lincoln Park.

Mr. McBride reports the Redpoll at Jackson Park on November 12. Crossbills have been found at Beach. Some, taken by Mr. Gregory, may prove to be of the Newfoundland subspecies.

The writer found a late Myrtle Warbler at Jackson Park on November 23. The wintering Golden-eyes came into the lake and park lagoons at about the same time. Scaups to the number of 4,000 were seen by Potter and Robinson at Beach on October 26, and about 1,200 were reported from the same locality by Tyrell on November 12.

Bonaparte's Gulls were last seen December 1. These Gulls remain in small numbers almost every winter and are probably present in the region at this date. On December 9, Mr. and Mrs. Coffin found several Meadowlarks in the Dunes, and, on the same date a

Robin was reported from Summit, Ill., by Messrs. Watson and Leopold.

The Society closes this year's migration report with a total of 228 species recorded in this region by members.—GEORGE PORTER LEWIS, *Chairman, Report Committee, Chicago Ornithological Society.*

MINNEAPOLIS REGION.—The fall throughout has been unusually mild, with no really cold weather, no frost in the ground, no snow that lay on the ground and no ice on the ponds and lakes in this locality until near the middle of December. The latter half of October was marked by warm, balmy, summer-like days, with a temperature of 78° at noon on October 28, and the average temperature for the month was the highest on record here. On the final day of the month willow catkins and lilac buds appeared as though about to open, a few dandelions and violets were in bloom and the grass in places was fresh and green. The first three weeks of November were almost continuously dark, rainy and cool, followed by a few days of colder weather, when thin ice formed at night on shallow pools. On November 19 and 20 six or seven inches of snow fell in the Lake Superior region, and on the 27th the first real snow storm, with a fall of about an inch, occurred at Minneapolis, but it did not last long, the temperature being from 31° to 35°. Up at Moorhead, in the Red River Valley, over two inches fell, with conditions approaching a blizzard. The last three days of November were again mild and spring-like with the temperature up to 57° at noon on Thanksgiving Day. But it turned cold that night and froze hard for the first time. Several milder days succeeded with a sudden drop on December 5 to plus 2°. It was clear and cold all day at Minneapolis on this date and the Mississippi River in the gorge below the Falls steamed for the first time this season. In the northern part of the state there was a heavy blizzard, with much snow, and a fierce icy gale swept Lake Superior, causing much hardship as navigation was still in progress. This was the first big storm of the winter but the southern portions of the state escaped except for a cold wave. It

has continued cold since December 5. A blizzard visited Minneapolis on the 11th and on the 13th occurred the first sub-zero weather, 7° below at Minneapolis and 14° below up at Moorhead. About two inches of light snow fell on the night of the 14th, and on the 15th for the first time this year in this locality the ground was covered with a white blanket that lasted more than a few hours.

The most notable feature in the bird-world during the two-months' period just closed has been the loitering behind schedule time of certain of the late migrants, this being true rather of scattered individuals than of any considerable number of any species. Also there have been thus far very few winter visitants from the North reported. These conditions are due, no doubt, to the generally prevailing mild weather. If the unusually abundant crop of wild fruits and seeds hereabouts is any indication of what happened farther north the birds that commonly come to us from that direction before this are probably staying nearer home, satisfied with food and weather conditions.

For much of the following detailed information I am indebted to Mr. E. D. Swedenborg of this city, and to Mr. A. C. Rosenwinkel of St. Paul, who have kindly placed their fall observations at my disposal.

Tree Sparrows, Juncos, Brown Creepers, Goldfinches, Red-winged Blackbirds and an occasional Robin, Rusty Blackbird and Flicker (December 5) were in evidence until the cold weather in the first week of December. Two Mourning Doves were seen near Anoka on December 2 by Mrs. Roy Hodson. On November 19 Mr. Swedenborg saw a flock of Grackles, a Song Sparrow and three Bluebirds. Fox Sparrows were here until November 12. A few last dates from Mr. Rosenwinkel's report are as follows: October 14, Magnolia Warbler; October 18, Savannah Sparrow and Ruby-crowned Kinglet; October 21, White-throated and Chipping Sparrows; November 11, Song Sparrow, Fox Sparrow, Flicker and Bluebird; November 18, Golden-crowned Kinglet and Robin; November 25, Red-winged Blackbird; and on December 9 a lone Purple

Finch keeping company with a small troop of Chickadees.

The Duck shooting season lasted late this year on account of the open water, and when the final accounting comes it will probably be a large figure. About 1,500 Ducks were killed at the Long Meadow Gun Club not far from Minneapolis. Mallard Ducks were still present in numbers at Heron Lake on December 5, feeding in the neighboring corn fields.

This was the open year for Ruffed Grouse (open even years, closed odd years), and an immense number were killed, as they were very abundant and tame throughout the northern forested part of the state.

Reports indicate that Prairie Chickens have multiplied greatly and next year they will be shot aplenty, as the odd years are chicken years.

The only visitants from the North that have been reported lately are eight Pine Siskins at Pipestone, September 20 to October 8 (this bird breeds in the northern part of the state but is a fall and winter visitor in the southern part) (Peterson); a Hawk Owl near St. Paul on December 9 (Rosenwinkel); and a Snowy Owl near Anoka (Mrs. Hodson).

Two Magpie records from the southwestern corner of the state suggest a possible repetition of last winter's great eastward movement of this bird. Mr. Peterson reports one seen near Pipestone on October 20 and Mrs. J. A. Campbell tells of a covey of five at Ivanhoe, Lincoln County, on November 25.—THOS. S. ROBERTS, *Zoölogical Museum, University of Minnesota, Minneapolis, Minn.*

KANSAS CITY REGION.—A general movement of Ducks through this region on October 17 brought the shooters out in force, but owing to exceptionally low water in the club lakes and marshes but little execution was done. The few Ducks brought in were killed above the city on the Missouri River. This flight, the bulk of which evidently passed on through this region without stopping, was the first of the season of any size, and was coincident with the arrival of the first winter storms in the lake

country a few hundred miles north of this point. Bluebirds and Meadowlarks in great numbers were still passing at this time, and most of the Sparrows, particularly Harris's, White-throated, and White-crowned arrived in numbers, while Song and Tree Sparrows did not appear in force until ten days later.

On October 28 a lately occupied roosting place of Short-eared Owls, plentifully strewn with fresh pellets, was found within the city limits, but the flock had evidently moved to other ground as no birds could be found in the neighborhood. All the pellets examined contained only rodent remains. A belated Mockingbird was seen on this date in a brushy place in the Country Club district where an individual of this species was found wintering four years ago. On October 30 the Kaw Valley between this city and Lawrence, Kan., was found swarming with small migrants and Hawks. Sparrows, Grackles, and Meadowlarks made up the bulk of the crowd, while of the 37 Hawks counted on the trip Redtailed, Rough-legged, Cooper's, and Sparrow Hawks were identified. A large and a small covey-of Bob-whites were flushed, and a few Ducks were noted on the Kaw River.

On November 15 a large flight of Scaup settled on the Missouri River fairly within the city limits, and at least two rafts of several hundred birds each, with a few Green-winged Teal and Mallards, were using the stretch of water below the Milwaukee bridge. No gunners were out to disturb this flock as this piece of river has been little used by Ducks of late years. Detached troops of these Ducks were found in the same place three days later.

During the last half of November Purple Finches were found to be numerous in several wooded tracts in and near the city. This species is quite irregular in this region and is seldom common.

The abundance of all kinds of wild fruit over this entire region has had little apparent effect on migration. It has seemed that possibly more of the smaller migrants than usual have loitered to feed here, but early December finds fewer birds present, both species and individuals, than during recent

less favorable seasons. Red-headed Woodpeckers in moderate numbers seem to be settled for the winter, as is usually the case when the shingle acorn crop is heavy. It may confidently be expected that a few of these birds will remain throughout the winter. Blue Jays are especially numerous this December, but Sparrows of all species, save Juncos, are comparatively scarce.—
HARRY HARRIS, *Kansas City, Mo.*

DENVER REGION.—It is a commonplace observation in ornithology that our semi-domesticated birds, such as the Robin, the House Sparrow and the House Finch, for example, grow wonderfully familiar with man and display amazing fearlessness in his presence. It is, however, more remarkable that other species usually and normally very shy as Owls, and Hawks, may exhibit similar traits of fearlessness. On Sunday afternoon, December 11, the writer discovered a Maxwell Screech Owl in an evergreen in the park near his house. The bird was in plain view, though blending beautifully with the tree trunk, its branches, and its shadows; it made no sign of uneasiness despite my close presence, together with my friend and his dog, nor because of the dozens of autos which were constantly passing to and fro on the road not ten feet from it. Heretofore it has been only during spells of extreme weather that this Owl has been detected by the writer in the city, though it is relatively common in the neighboring foothills; the day on which this particular Owl was seen was bright, mild and almost spring-like.

In the presence of this variety of winter weather in Denver, birds are always scarce and this season so far has proved no exception. One always sees a few Juncos in the region between October and May and in large numbers when there is much snow. So far this fall Juncos have been few in individual numbers but about as usual in the number of different subspecies. On December 11 the following were noted: Shufeldt's Pink-sided, Montana, and Grey-headed, all of which make a fairly representative average for this season. The Grey-headed Junco was first recorded this fall in my vicinity on October 17, the day after a mild snowstorm.

On the same day a Slender-billed Nuthatch was observed, only a block from the State Capitol grounds, and at the same time there were to be seen Mountain Chickadees in the various parks of the city.

Mild weather has continued for weeks which has left open water in many prairie lakes and reservoirs, on which various water birds still linger. Amongst the records of the usual and common Ducks occurring here this fall is one of the White-winged Scoter, a bird taken near Greeley and a species rare for Colorado.

On November 16 a solitary Common Cross-bill was noted near my home; this species is very erratic in its visits, and was last seen in my neighborhood on April 20, 1922.

The writer was recently reminded of records of Sharp-shinned Hawks remaining all winter in large eastern cities like New York and Washington when he saw, on November 24, an individual of this species perched on a wireless mast in sight of his office.

The eastward extension of Lewis' Woodpecker has been mentioned in these reports in the past; the first time it has been noticed well within the city itself on November 24, on which date one was noted by one of my friends in his yard not far from City Park.—
W. H. BERGTOLD, *Denver, Col.*

PORTLAND (OREGON) REGION.—The fall season in the Portland region has been rather mild and the bird movements have not been particularly noteworthy. The usual wintering flocks of Meadowlarks, Flickers, and Crows began to appear late in October, but it was not until November 25 that I noticed them in great numbers. Since that time flocks of a dozen or more Meadowlarks have been continually in evidence in the suburban districts. Northwestern Flickers gather about my home at this season in loose, straggling groups and remain all winter. There are approximately seventy-five of these birds that are feeding at or near my home.

From November 15 to 22, I was in the Klamath country and saw something of the marvelous flight of Geese which occurs every fall in this district. Snow Geese, White-

fronted Geese, Cackling Geese and Hutchins's Geese seemed to be the most abundant in this flight, although there were a considerable number of Canada Geese present. Tule Lake is one of the great Goose shooting grounds of the Northwest, and I saw there flocks of Geese that reminded me of the flights of years ago of the upper Mississippi Valley. In the hunters' game bags which I examined, White-fronted and Cackling Geese were by far the most abundant. The White-fronted Geese were very fat, but most of the Cackling Geese and all of the Snow Geese that I saw were extremely thin, evidently having just arrived from the North.

On Sunday, November 19, while there were many hunters around Tule Lake, I visited the Clear Lake (California) Reservation in company with Jack Ferber, the warden. We could see immense flights of Geese coming to Clear Lake from Tule Lake, as they were disturbed by the shooting. There were great flocks of Geese all around the shores of Clear Lake and these birds were remarkably tame compared with their behavior while in the Tule Lake region. Many flocks passed within 30 yards of us while we were examining the bird islands. These same birds on Tule Lake would not, as a usual thing, fly low enough to be within gun range. This shows very strikingly the value of a protected area in such a country.

Large numbers of Ducks were also present around Klamath; the great bulk of those seen were Widgeons, Mallards, and Ring-necked Ducks, being abundant in the order named. Scaup, Pintail, Golden-eye, Ruddy, Bufflehead, and Canvasback Ducks, Green-winged Teal and American Mergansers were also noted.

On December 2 and 3, there was a flight of Audubon Warblers in a suburban section to the east of Portland. This flight has now passed on, but a few individuals remain. On the same day an unusually large flock of Green-backed Goldfinches were noted.

Golden-crowned and Nuttall Sparrows are again present in large numbers at the bird fountain at the home of Mr. Gale on East 82d Street. Fox Sparrows are not conspicuously abundant to date.

Other winter birds, such as Chickadees,

Jays, Kinglets, and Woodpeckers are about in the usual numbers. While Evening Grosbeaks have been present for several months, the flocks do not seem to be as abundant in my immediate neighborhood as usual.—IRA N. GABRIELSON, *Portland, Ore.*

SAN FRANCISCO REGION.—Warm weather with copious rains has characterized the fall season in the Bay region. Abundant crops of wild seeds and of berries, both wild and cultivated, as well as of ungarnered almonds and olives, have provided food for Jays, Sparrows, and Thrushes, so that birds belonging to these categories have been very numerous in favorable localities. Feeding-tables, on the other hand, have been wholly neglected, even banded habitués refusing to be enticed by most elaborate bills of fare. Through Strawberry Canyon loose aggregations made up of Juncos, Towhees, Fox Sparrows, Song Sparrows, Hermit Thrushes, and Ruby-crowned Kinglets, appear and disappear leaving empty spaces where not a bird is to be seen. Only at infrequent intervals when the thermometer has dropped or continuous rains have become annoying have any of the birds seemed to remember their feeding place of last winter.

Since November 12 a banded Brown Towhee and his mate have occasionally partaken of Canary seed. On November 29 a White-throated Sparrow that formed the habit last winter of walking into the trap whenever occasion offered returned once more to his old feeding ground. And on December 6, Thrashers which had not to my knowledge accepted any help in the commissary line since they were seen feeding grown young on June 29, appeared again on the table. So far as I can discover, Golden-crowned Sparrows have become enamored of the berries of the cotoneasters and crataegus which have been planted so generally on the campus and in the gardens. The canyon seemingly offers no attraction that can compare with these shrubs. At any rate, I have seen very few Golden-crowned Sparrows in the canyon this fall, although on the campus they are dodging under the shrubbery with red berries in their beaks wherever one goes. Western

Bluebirds in a flock numbering about 25 come over the hills every morning by the Strawberry Canyon route, and are frequently reported from different parts of the city. From her vantage point on the heights above Wildcat Canyon, Mrs. Saunders reports two flights of Crows, the first occurring on November 1 and consisting of about 100 individuals. Four days later a second flock numbering about 1,000 passed.

Winter visitants of all the usual kinds are abundant, including even Golden-crowned Kinglets, Nuthatches, and Varied Thrushes. In Oakland Mrs. Schlesinger has seen the Crossbills, and on Tamalpais, Mr. and Mrs. Kibbe found a Clarke Nutcracker. In the Santa Cruz Mountains, where madrone berries were abundant, flocks of Band-tailed Pigeons were seen on November 3.

Along the Alameda shore Mrs. Kelly reports increasing numbers of Red-backed Sandpipers and Bonaparte's Gulls. A few Willets and Black-bellied Plovers are still seen when the tide is favorable, but Long-billed Dowitchers and Western Godwits are almost gone. On December 3, on a sandy beach, she saw one Snowy Plover and twelve Sanderlings.

On Lake Merritt in Oakland the usual Duck population is being fed. Spectators are increasing in number, but the Ducks are undisturbed. There is no apparent difference in behavior between the wild Ducks and the handful of pets that have been turned over to the city's care. In Golden Gate Park, Ring-necked Ducks have again been seen on North Lake.—
AMELIA S. ALLEN, *Berkeley, Calif.*

LOS ANGELES REGION.—October 16, Gambel Sparrows were abundant as were also male Audubon Warblers in high plumage. Thurber's Juncos and Golden-crowned Sparrows, which are regular winter habitués of the picnic grounds in Griffith Park, had returned to their accustomed foraging grounds among the tables, and a Red-breasted Sapsucker was working on a nearby pepper tree, the same tree on which he or one of his fellows had found refreshment last winter, while a cedar with opening cones furnished provender for a busy Red-breasted

Nuthatch. Lark Sparrows were also about, and the Blue-fronted Jays that have lived in the Park since the winter of 1920 were said by the keeper to be there still. On October 21, a Western Grebe, Cormorants, and a Baldpate were seen in Westlake Park; on October 23 five Scaups came into the lake at Echo Park, and on October 23 a Red-naped Sapsucker was found at Verdugo Woodlands.

October 24. Young Heerman's Gulls were very common along the beach from Santa Monica to Santa Inez Cañon. The close and persistent attendance of a Heerman's Gull upon a Brown Pelican engaged in efforts to obtain a meal was noted. Young Western Gulls still coaxed their parents for food. A Brandt Cormorant, 5 Western Grebes, 3 Loons and about 12 White-winged Scoters, the latter all males, were seen, as well as a few Forster's Terns.

October 25 and 26. Violent winds ushered in cold weather with two to five inches of snow in the mountains, and one-half to one inch of rain in the valleys. On October 27 Mountain Bluebirds were seen in the open country toward Laguna Beach and a Dusky Warbler in a Whittier garden. On October 29 the first report of Robins reached me from the foothills of the Sierra Madre, and of the Lewis Woodpeckers near Newhall.

October 30. At Playa del Ray, Bonaparte's Gulls were recorded for the first time this season. A few Black-bellied Plover were seen, as well as considerable numbers of the Semipalmated, and one Long-billed Curlew. All the Scoters seen at this place appeared to be the females or young. Piptits were seen a few miles inland. A report comes from Riverside of a flock of 38 Avocets visiting a reservoir in the vicinity of Marsh Field late in October.

November 2 brought Cedar Waxwings, more Robins, a Ferruginous Roughleg Hawk, and the first Hermit Thrush recorded this season by our group; a Red-breasted Sapsucker, a Chipping Sparrow, more Golden-crowns, two Kingfishers, and a Little Green Heron. On November 4 one Red-naped Sapsucker and large flocks of Robins and Cedar Waxwings were seen.

November 4. A trip to a lake in the

mountains of southwestern Ventura County furnished a list of about fifty species. The open country traversed enroute furnished many Hawks, Crows, California Woodpeckers, a Roadrunner, Say's Phoebe, Lark Sparrows, Doves, Meadowlarks, Pipits, and Western and Mountain Bluebirds. On the lake, which was about five miles distant from the ocean, were hundreds of Ducks of many kinds, 2 Western Grebes, a few Pied-billed and Eared Grebes, and stalking in the shadows, 6 or 7 Great Blue Herons. As we stood upon the shore with glasses ranging over the vast assembly of Ducks, comprised of Pintails, Mallards, Baldpates, Ruddies, and others, a roar of wings overhead drew our attention to a flock of White-winged Scoters coming in over the intervening mountains from the sea to fresh water. A flight of White-throated Swifts passed over the lake and the rocks where a Dotted Cañon Wren crept about the crevices. A Flicker was seen, having the red nuchal band of the Northern. It took wing before any further details could be noted, revealing in flight the yellow wing linings.

The bird noted in previous reports as seen in a Pasadena garden is still a frequent visitor there. It has the characteristics above noted, and also the black malar stripe of the Northern.

November 13. A White-throated Sparrow (*Zonotrichia albicollis*) was found by Miss Mary Mann Miller, where a weedy field adjoined the chaparral of the foothills. It was in company with Gambel Sparrows. Not far from this vicinity a bird of this species spent the winter of 1919-20, appearing regularly at the feeding station of a member of the Audubon Society almost daily from November to late February, where it was seen by many people. On the above date two Varied Thrushes were found among the oaks of a small foothill ravine in Griffith Park.

November 17. Pine Siskins were numerous among the weed patches near the Park entrance.

November 18. A Bell Sparrow was seen by Mrs. F. T. Bicknell, near the place where the White-throat was found. A Varied Thrush and a Dusky Warbler were also seen

November 19. Two Hermit Thrushes were seen, making only the second record of this species this season. Mountain Bluebirds were seen near Beverly Hills.

November 20. About fifty Band-tailed Pigeons were found in an oak woodland near Pasadena, where also were seen Lewis' Woodpeckers and five or more Phainopeplas. The late date for the latter species was thought to be attributable to the abundance of wild grapes on which they seemed to be feeding, as were also Hermit Thrushes and Robins. The locality was visited again November 27, and all the above list of birds were again seen and also Pine Siskins found in weedy areas nearby.

November 26. Upper San Antonio Cañon. The summits were snow covered and great silence pervaded the forest, unbroken even by Jays or Chickadees. One Cassin's Finch slipped quietly away among the dark incense cedars. In a sunny open stretch a flock of Juncos rang their silver bells as they flitted from our path, bringing to the top of a brush heap a curious Fox Sparrow that dived to cover after a glimpse of the intruders. This constitutes our first record for the season, no Fox Sparrows having been seen in the foothills.

November 30. Mrs. F. T. Bicknell reports seeing the Townsend Solitaire at Forest Home, San Bernardino Mountains. California Purple Finches were the only other birds seen.

December 4. The Dusky Warbler was seen in a town garden, and on the 5th in the foothills.

December 7. Griffith Park. A brilliant day following a good rain storm of two days' and nights' duration. Vivid green of sprouting grass; a field full of Robins pulling worms from the moist earth; on an adjoining ploughed strip more than 100 Killdeer nimbly running about on urgent affairs connected with the unwonted moist surfaces; Pipits alighting on a bare space, Bluebirds flying over, and the inevitable Sharp-shin making sallies among them; two Red-breasted Sapsuckers that wintered here last year are at home, each on his own tree, if circumstantial evidence may be taken as their identity. FRANCES B. SCHNEIDER, Los Angeles, Calif.

Book News and Reviews

REPORT OF CHIEF OF BUREAU OF BIOLOGICAL SURVEY. By E. W. NELSON. 8vo. 39 pages.

The Bureau, Dr. Nelson states, is organized as follows:

1. Economic investigations. Dr. A. K. Fisher, in charge.
2. Food habits research. W. L. McAtee, in charge.
3. Biological investigations, E. A. Goldman, in charge.
4. Alaskan reindeer and fur-bearers. E. W. Nelson and W. F. Bancroft, in charge.
5. Game and bird reservations. H. F. Stone, in charge.
6. Migratory bird treaty and Lacey Acts. G. A. Lawyer, in charge.

It is difficult to abstract an abstract or to quote from any part of this condensed Report without quoting all of it. We can, therefore, simply refer those interested to the Report itself and add that no one can read this summary of the activities of the Biological Survey for the year ending June 30, 1922, without being impressed by the extent, variety, and value of the services which this organization is rendering the people of the United States in particular, and to the science of conservation and economics in general.—F. M. C.

THE IMPORTANCE OF BIRD LIFE. A POPULAR ACCOUNT OF ITS ECONOMIC SIGNIFICANCE AND CONSERVATION. By G. INNESS HARTLEY. The Century Co., New York. 1922. 12mo. 316 pages. 24 half-tones.

Mr. Hartley has here brought together a mass of information concerning birds which we do not believe can be found elsewhere between the covers of a single volume. There are chapters on the 'Relation of Birds to Man' and to the 'Health and Works of Man,' the origin and value of 'Domestic Fowls' and 'Domestic Pigeons,' on the training of birds to hunt and to perform, on the destruction and the propagation of birds for their plumes, on birds as producers of guano, on 'Game Birds,' 'Game Laws,' and 'Conservation.'

If the subtitle had been omitted and chapters on the science and sentiment of ornithology added, we should have had a well-rounded sketch of the value of birds to man.—F. M. C.

WESTERN BIRDS. By HARRIET WILLIAM MYERS. The Macmillan Co., New York. 1922. 12 mo. XII + 391 pp. Numerous half-tones.

This book treats of the habits of the Cuckoos, Kingfishers, Woodpeckers, Swifts, Hummingbirds, and passerine birds of our western states, with particular reference to those of California. The author is an enthusiastic bird-lover who has devoted years to the study of birds in nature and who, therefore, has included in her book much information based on original observation. She is also familiar with the literature of her subject, particularly that which relates to the food of birds, and has greatly increased the reference value of the book by drawing on the writings of others.

The illustrations are in black and white, and include reproductions of many interesting photographs from life, as well as a number from photographs of mounted specimens.—F. M. C.

The Ornithological Magazines

WILSON BULLETIN.—The volume (XXXIV) of the Wilson Bulletin for 1922 has been concluded since our last notice. The many improvements of the preceding numbers are continued during the past year. In addition, we notice a new Bird-Banding Department, conducted by Wm. I. Lyon, who also contributes an interesting summary of the behavior of many species while being banded.

The caliber of the articles, however, is distinctly below that of the last year. Too many are local lists based on very fragmentary observation, which add little or nothing to our knowledge of the bird-life of the region treated. The reliability of the

sight records in others is considerably impugned by such remarkable observations that a most detailed account is needed to carry conviction. Such an article is the 'Birds of the Cape Fear Region of the North Carolina Coast' by Z. P. Metcalf. Two weeks of casual observation in summer add nothing to our knowledge of this region, barring two or three occurrences, where the necessary comment is lacking. Thus, a Wilson's Snipe, seen on an oyster flat on June 5, is so improbable as to date, habitat, and latitude that more than a mere mention is required. We hold that observations over a very brief period are rarely worth publishing, unless the region is scarcely known, and a search through the literature cannot give a definite idea of what might be seen at any particular season. Fulfilling every such requirement is an article on the summer birds of Cumberland Island, Georgia, by T. Gilbert Pearson, who tells us what can be found in four days on this unknown island paradise, about which no information has been available.

Another excellent article is a series of selected notes by H. L. Stoddard from southern Wisconsin, based on years of careful field-work of highly competent companions, as well as his own; this factor, plus the judicious use of a gun, gives these records a greater scientific value than any others in the volume. A brief account of the 'Breeding Warblers around Atlanta, Georgia' by Wm. H. La Prade, Jr., also contains additions to knowledge of considerable importance.

Aside from local lists there are some valuable contributions to life-histories. G. M. Sutton has an excellent study of the Road-Runner; C. J. Pennock writes delightfully of the Florida Burrowing Owl; and Ira N. Gabrielson brings out some interesting details of the habits of several common Iowa birds, in which the record-seeking observer takes no interest whatever. The Wilson Club has always sponsored the study of life-histories and has published many articles of preëminent excellence in this field. Mr. Sutton also contributes some very original 'Remarks on the Facial Expression of Birds,' an interesting attempt to

explain this phase of bird-portraiture from the artist's standpoint.

Two other articles on slightly different topics pleasantly vary the make-up of the June number. C. W. G. Eifrig discusses the effects of a mild winter on the migration of birds at Chicago. The data given tend to confirm ideas already well known on this subject. Climate, as an obviously variable quantity, is often 'worked to death' in explaining variations in bird-life. Mr. Eifrig's remarks are largely free from any such bias.

Fred J. Pierce contributes an historical sketch of the various methods of hunting Prairie Chickens in Iowa which so greatly decreased their numbers. It is a pleasure to learn, however, that under adequate protection they are now steadily increasing.

'A Sketch of the Wilson Club,' by Prof. Thomas L. Hankinson, was one of the opening papers at the recent A. O. U. Congress in Chicago. We agree heartily with all but one of his statements. No scientific periodical, which has existed any length of time, has ever avoided publishing something unsound or inaccurate, and the Wilson Bulletin is no exception. The volume now before us for review contains ample proof of this. Perhaps the most patently incorrect sight record we have seen in print in a long time is that of a flock of Whistling Swans perched in the bare branches of a cypress swamp near the mouth of the Ohio River early in September. The author tells us that these birds are known to the natives as 'White Cranes,' thus supplying the reader with a clue to their real identity. Further illustrations may be found in an article on the birds of Greenwood Lake (New Jersey and New York), by Louis S. Kohler, which abounds in obvious errors of inclusion and omission, though we do not question the sincerity of the observer. While people interested in this region must be warned that not one of the rare records in this paper can be accepted as of scientific value, criticism should be directed at the editor as well as the author. The Field Notes are all particularly well written. It seems unfortunate that the Index does not include either titles or contributors.—L. G.

Bird-Lore

A Bi-Monthly Magazine

Devoted to the Study and Protection of Birds

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

Contributing Editor, MABEL OSGOOD WRIGHT

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Bird-Lore's Motto:

A Bird in the Bush Is Worth Two in the Hand

THIS IS BIRD-LORE's twenty-fifth birthday. We know of no better way to celebrate it than to emphasize the importance of President Pearson's plea for a home for the National Association of Audubon Societies.

The large increase in the Association's endowment during the past year not only gives renewed assurance of the stability and permanence of this organization, but by increasing its potential usefulness also adds to its responsibilities. But the Association cannot live up to its responsibilities by widening its operations in many vitally important fields without a home in which its numerous activities can be properly conducted. A building dedicated to the causes for which the Audubon Societies stand would in itself be a monument to the conservation of wild life. It would indeed be a Museum of Conservation, a storehouse of readily accessible facts concerning the value of birds to man. Here teachers might come for information and inspiration and, in conference, exchange experiences. Here the 'bird gardener' could examine approved types of nesting-boxes, baths, feeding devices, and storm shelters, and receive instruction in regard to constructing and placing them. Here would be exhibited samples of bird-food with the formulas for its preparation. Here would be specimens of plumage confiscated from dealers and smugglers, so displayed that game-wardens and custom house inspectors could familiarize themselves with its appearance and thus be prepared intelligently to enforce the bird-protective

laws. Here the wardens of the Society could assemble and with the aid of slides and motion pictures become familiar with one another's activities. In short, the need for a building dedicated to the work of the Audubon Societies is so obvious that we are tempted to continue to echo President Pearson's appeal for funds to secure one. But at least we must give expression to our belief that one room in this proposed building should be set aside for the use and work of affiliated societies, particularly bird clubs.

Under existing conditions, comparatively few of these local societies fill their field. At the beginning enthusiasm is not lacking, but undirected or misdirected enthusiasm does not spell success, and the result is loss of energy, loss of interest, and the perpetuation of the club merely as a name. No movement goes far without a well-conceived plan—a program—and we have observed that the bird clubs which are longest lived and most active are the ones which issue a printed schedule of events for the year, such, for example, as is printed by the Hartford (Conn.) or Waterville (Maine) Clubs.

It is true that all bird clubs may not have members with sufficient experience to take the lead in this way, and just here the Audubon headquarters comes to the rescue. There delegates from bird clubs might meet to compare notes and exchange suggestions, or individual members might find on file more complete reports than it is possible to print of the proceedings of sister societies. Here the lantern slides, charts, and publications of the National Association available for distribution could be examined at leisure. In a word, the possible activities of this one branch of an enlarged and correspondingly more effective Audubon Society is alone an eloquent argument for a prompt and generous response to President Pearson's appeal.

THE Roosevelt Memorial Association (No. 1 Madison Avenue, New York City) wishes to secure copies of the following numbers of BIRD-LORE, each of which contains a communication from Colonel Roosevelt: Vol. II, No. 3; Vol. VI, No. 5. Both these issues are out of print, but we hope that some of our early readers can supply them

The Audubon Societies

SCHOOL DEPARTMENT

Edited by A. A. ALLEN, Ph.D.

Address all communications relative to the work of this department to the Editor, Cornell University, Ithaca, N. Y.

ANOTHER YEAR

A whole year has flown by, so fast that some of us were barely able to get our field-glasses to our eyes and make out its field-marks before it was out of range, and then it was too late to do anything. Now, here comes another. Get ready. Dust off your glasses; get out your bird books; arrange your volumes of BIRD-LORE; reorganize your Bird Club or your Junior Audubon Society; and take a deep breath, for here she comes! There are so many interesting things to do that we didn't have time for last year and that we put off until this year, so now we must not forget them.

How about that bird calendar? Did you start it on the first day of January as you promised yourself? If not, better start it right now or our bird-list will beat yours 'out of sight.' If you want to refresh your mind on the subject, get out your copy of BIRD-LORE for March-April, 1920.

How about that collection of winter birds' nests? Have you started it yet? Refer to the November-December BIRD-LORE for 1920 and get started. See if you can find and identify twenty different kinds of nests this winter.

And how about that bird-house competition? Perhaps you didn't begin in time last year. The houses should be finished, judged, and in place by April 1, so better start the ball rolling right away. This is just a reminder; you will find all the directions in the January-February BIRD-LORE for 1920.

Of course you started your feeding-station for the birds last fall or early in the winter or, more likely, you just continued the one you have been running for years. Why don't you write us a little account of your success in attracting birds, with a list of all the birds that have ever come to your feeding-station? It will help to inspire those who are just thinking about beginning.

Did you ever go to the theatre when you were a child? Do you remember what an impression every little incident made upon your budding mind? Why don't you stage a bird-play by the children of your school or your Bird Club? Reread your copy of BIRD-LORE for March-April, 1922 and find someone else to direct the play if you don't feel able to do so yourself.

If you don't do anything else, get out for some good long bird-walks. Don't wait for the full tide of migration in May and don't stop when the migration is over, but keep it up throughout the year, Saturday, Sunday, or whatever day fits best into your schedule. Should you get interested in bird photography, you will find your bird days are all too few.

Now we will finish that walk we started in the last issue of BIRD-LORE and, if it seems worth while, we will take others during the spring and summer.—
A. A. A.

A CHRISTMAS WALK WITH BIRDS (Concluded)

In the last issue of BIRD-LORE, we started on a Christmas bird census but had to rest when we discovered the Crossbills in the hemlock woods. We had listed the birds at the feeding-station by the window before we started and then had followed up the ravine to the open fields. Crossing the fields and passing the old orchard, we had come to the sugar bush and the hemlock grove on our way to the swamp and the lake shore.



A SCREECH OWL, INCONSPICUOUS AGAINST THE BARK OF A HEMLOCK

When the Crossbills departed from the hemlocks we searched carefully for Pine Grosbeaks or Siskins but without avail. We did find however, a sleepy old Screech Owl roosting close against the trunk of one of the hemlocks where a branch had been broken off. He might easily have escaped detection, so closely did the pattern of his breast simulate the bark, and doubtless he would have, if he had been a gray Owl instead of a red one, but in his case, though pattern and shape were oblitative, his color exposed him. We delivered a lecture to him upon the subject of protective coloration, and expect that hereafter he will roost only among dead oak leaves.

At the edge of the hemlock grove, among the young trees, we next come

upon some tracks in the snow which remind us of the Pheasant tracks we discovered earlier among the cedars. The feet that made them, however, were evidently considerably smaller, the toes broader, and there is an almost continuous line between the tracks made by dragging the toes. They are not Crow tracks, because there is scarcely a mark left by the hind toe and the front toes are set at too wide an angle. So we decide they must have been made by a Ruffed Grouse, and proceed to follow them. The tracks lead us in and out among the young hemlocks, across a patch of alders, to an old root fence along the edge of the woods. Here is a tangle of wild grape-vines with many of the dried grapes still clinging, and here, judging from the tracks, the old Grouse



RUFFED GROUSE ON A ZERO MORNING

His feathers are fluffed out so that he has a blanket of air, as well as feathers, to keep him warm
(The bird was raised in captivity)

has spent some time feeding. There are many old tracks still visible under the freshly fallen snow, indicating that this is probably a favorite resort, and there are several depressions in the snow close under the roots of the fence where he has probably roosted at various times. Finally we find some very fresh tracks leading back into the alders towards an upturned tree. The tracks are farther apart as though the bird had been running, and we decide that he had been feeding when we approached and, upon seeing us, had run back into the alders to escape detection. Now we keep our eyes focused far ahead in the hope of seeing him running but when we are stepping over the fallen log, we are startled by a roar of wings from behind the upturned roots of the tree and know that our bird is off. So well does he know our position, however, and so accurately

does he direct his flight that he keeps the roots in the line of our vision until he is far out of range of any possible gun. We catch not a glimpse of him until he is disappearing over the top of a young hemlock in the distance. Where Grouse are not hunted, they become extremely tame, and also when they are kept in captivity. But a wise old bird, that has been through one hunting season, has learned many tricks for rendering himself invisible and will defy even the most stealthy observer to get a close view of him.

We are not the only ones startled by the flushing of the Grouse. A scolding *chimp-chimp*, like a wooden-voiced Song Sparrow, tells us that a little Winter Wren was not expecting all that noise in his quiet domain and is expressing his disapproval. Mouselike he creeps up toward the top of the up-turned roots, his little tail standing straight in the air, but, upon getting a good look at us, he buzzes over to a near by brush-pile into which he disappears with vehement scolding.

As we are pushing our way through the alders, trying not to slip into any of the soft spots that seem to be scattered about in the most unexpected places, we hear a chattering and warbling ahead of us from a good-sized flock of birds. Some of the chattering notes are almost like those of the Winter Wren only more metallic. These we discover are made by Purple Finches which, with a number of Goldfinches, are feeding upon catkins of the alders. Most of the Purple Finches are in the streaked plumage of the female or immature but even these occasionally indulge in a low warble, like that of the brilliantly colored males, and all of them, when excited, give the chattering notes that first attracted our attention. One familiar only with the summer Goldfinches would never recognize the dull gray little birds among the Purple Finches as his friends, even though there is a tinge of yellow to the males. Their sweet, canary-like call-notes, however, are the same, though when on the wing, their *per-chic-o-ree* note is seldom heard and their undulating flight is less conspicuous than during the summer. So, also, the warbling of the Purple Finches is inconspicuous and merely suggestive of their loud springtime outbursts.

Our walk through the rest of the maple and beech woods is rather uneventful, and we direct our steps toward the marsh and woodland at the head of the lake where we are pretty sure to find one or more 'summer birds' trying to spend the winter with their hardier cousins. This year it is a Catbird that is eking out its existence from the abundant wild grapes. Last year it was a Northern Yellow-throat, and at other times it has been a Long-billed Marsh Wren, a White-crowned Sparrow, or a Hermit Thrush. Flickers, Red-bellied Woodpeckers, Swamp Sparrows, Cardinals or other birds unusual for this locality in winter are likely to be found so that we always approach this area with great expectancy. Tree Sparrows are abundant and there are a number of Song Sparrows with them. We find more Chickadees and Nuthatches and Downy and Hairy Woodpeckers than in all of the other places combined, and the snow is crossed and recrossed in every direction with the tracks of Pheasants.

Sitting on the tip-top of a locust tree along the road we espy a bird about the size of a Robin. He sits a little less erect, however, as though he were facing into a stiff breeze. His markings do not show well against the sky and, as we are trying to make sure of our identification, he bursts into a strange song. Songs from birds during the winter are unusual enough, at best, and this song has such a spring-like quality that, even were we not looking for birds, it would arrest our attention. At first it sounds like a Catbird, then a Robin, and then strangely different from either, though with much the same quality. We can hardly believe that it is a Northern Shrike, but such it proves to be. Later we see the same bird hovering over a willow bush in which several Chickadees are scolding and hopping about. Apparently they are too active for him, he cannot corner them in his customary way and he gives up the attempt.



A SHORT-EARED OWL THAT HAD MET WITH AN ACCIDENT

These Owls often remain all winter in flocks where mice are abundant, especially about marshes where they pass the day

Now we follow some weasel tracks out into the cat-tails at the head of the lake where the traveling is rather difficult owing to the thick growth. We are rewarded for our efforts by flushing a big yellow-brown Owl from a log on which he had been roosting and, on pushing farther into the marsh, flush several others from the ground or matted rushes where they have been spending the day. We know that nothing but Short-eared Owls would be found in such a place, and though we cannot make out the ears, even when we steal up within close range of a bird that has alighted on a pile of drift on the lake shore, there

is nothing else for it to be. We gather up some of the pellets disgorged by one of the Owls on what seemed to be a favorite roosting-log to determine what the birds have been feeding upon, and, though we examine many of them, we can find nothing but the bones and fur of meadow mice and those of an occasional shrew. The numerous tracks and burrows of mice in the snow show, perhaps, what has attracted the Owls to this spot, for their wanderings seem to be controlled largely by the abundance of mice which constitute their chief article of diet. It is too bad that so many of them are sacrificed as targets for gunners when they are among our most necessary birds.

Following these Owls has brought us to the lake shore where we will complete our Christmas list with a good variety of water-birds, perhaps the most interesting of all. The lake is frozen for several hundred yards from shore but



A HORNED GREBE IN WINTER PLUMAGE
ON CAYUGA LAKE

beyond the edge of the ice there are hundreds of Ducks. Now is the time when binoculars, or even a telescope, is a great convenience, though, if we walk down the west shore of the lake beyond the edge of the ice, we can get fairly close to some of the flocks that are feeding. After the hunting season closes and they lose some of their timidity, we will be able to get quite close to many of them that are very wild at this time.

Scarcely do we show ourselves in the open before some chunky dark colored Ducks that were swimming close to the edge of the ice take fright and rise with a splash and pattering feet, leaving quite a wake on the quiet surface of the

lake. They are Golden-eyes, or Whistlers, and we can hear the music of their wings even at the distance of several hundred yards. They are not as dark as they at first seemed for, as they fly away from us, the large white patches in their wings are very conspicuous, and when they turn, their snowy white breasts flash. A whole flock of them flying directly away remind me of nothing so much as a spray of cineraria flowers, for their centers are dark bordered by the clear white patches in their wings and tipped again with black. In rising the effect is heightened by the shape of the flock which never strings out but lifts in a cluster. On the water the immature birds and the females with their brown heads and gray breasts and flanks appear very dark, but the old males, with their snowy breasts and white flank feathers concealing the

black of the wings, may appear even whiter than the Canvasbacks. Once on the wing, a flock of Whistlers usually scatters and travels in very loose formation. Each bird seems to have an idea of his own as to just where he is going and how fast he wants to travel. It is interesting to watch them veer off from a flock of decoys that happen to be in their line of travel, with as much as to say, "You can't fool us," when other Ducks, under the same circumstances, would turn directly to the decoys, even if they didn't alight right among them. A single Whistler can be distinguished by the trained eye as far as it can be seen against the sky by its blocky head, chunky body, and well-developed tail. The little Buffleheads are built on much the same lines but they usually travel much closer to the water where they appear much blacker owing to their nearly uniform dark wings.



SCAUP DUCKS FLYING OVER CAYUGA LAKE IN WINTER
The trained eye will pick out a Canvasback and a Redhead in the flock

The other Ducks that were feeding along the edge of the ice merely swim out toward the center of the lake as we approach, with the exception of one wary old Black Duck that jumps up even farther away than the Whistlers, rising straight into the air, so differently from any of the diving Ducks. The satiny white lining of his wings shows conspicuously against his dark body as

he fans the air and makes his identification easy, though a female Mallard might show the same against her yellow-brown or gray-brown body. The other Ducks are Greater Scaups, Canvasbacks, and Redheads, and when we climb the bank on the west shore of the lake to the porch of a summer cottage and look down upon them, we have little difficulty in distinguishing them. From the side, the white flanks of the male Scaups make them appear almost as white as the Canvasbacks, but from above their darker backs quickly dispel the illusion. There are numerous flocks scattered over the lake, some with as many as 500 to 1,000 birds and others with but few. Some of the flocks are mixed while others are purely of one species. Especially is this true of the Redheads which seem to be clannish Ducks, and, whether on the water or in the air, keep in close, soldierly ranks. Canvasbacks and Scaups mix more often, but one frequently sees a Canvasback leave a flock of Scaups to join a flock of his own kind. With all three of these commonest species, the males are greatly in excess of the females, though this is rather difficult to explain. Some duck-hunters think that the females are more delicate and therefore go farther south for the winter, but inquiry among my southern friends has as yet failed to reveal a place where the females are greatly in excess of the males. On an average, the males on Cayuga Lake exceed the females at the rate of four or five to one, and in many of the flocks of Canvasbacks there must be twenty-five males to one female.

It is interesting to watch the flocks of Ducks come flying down the lake to join their brethren on the water. With a little experience one can identify most of them by the shape of the flock: the Whistlers by their very open formation; the Redheads by their dense ranks, usually flying rather close to the water; the Scaups by their irregular form, rather open flocks and seldom in lines; the Canvasbacks, most majestic of all, flying in lines or V's like Geese, usually high in the air but rising and falling as they advance. One never tires of watching them circle, set their wings, bank, and drop with a splash beside their fellows. One loves to scan the various flocks with his glasses searching for stragglers of other species and often has the pleasure of discovering a group of Scoters, Buffleheads, Hooded Mergansers, or Ring-necked Ducks. Some winters one will find Mallards, Pintails, Baldpates, or others of the dabbling ducks that must rely largely upon food brought up from the depths by the divers. Indeed it is a regular trick of the Baldpates to steal from the Redheads. Some winters a few Coots and Pied-billed Grebes remain and always there are numerous American Mergansers, Horned Grebes, and a few Loons that one can count on finding. Overhead many Herring Gulls and occasionally a Ring-billed Gull sail gracefully in their search for dead fish or descend in numbers over a flock of feeding Mergansers to torment them until they drop their catches. Occasionally one may find a Bald Eagle sailing over the lake, like the Gulls, or descending to the ice to feed on a dying Duck. Always the lake holds thrills and is a fitting close to a day's hike for birds.



CROWS GLEANING CORN SPILLED NEAR A WATER-HOLE AT THE EDGE OF A MARSH

Returning home through the woods we come upon a flock of Crows gathered about a water-hole, and we are reminded that they are the first we have seen that day. Toward evening we will see long lines of them filing toward their roost in a pine grove a few miles up the lake and, had we been out earlier in the morning, we would have seen them dispersing to their feeding-grounds, but, curiously enough, it is possible to tramp for hours in winter through Crow-infested country without seeing a single Crow, when if one had walked in a different direction, he might have seen hundreds, yes, thousands.—A. A. A.

FROM YOUNG OBSERVERS

A BIRD WALK NEAR WELLS RIVER

One cold winter morning a group of Juniors, under the leadership of Lincoln Page, presented themselves for a bird walk. One never knows at this season quite what to expect, for some days very few birds are to be seen, but on this occasion fortune favored. The party was provided with grain, suet, and bread crumbs. Our course lay along the border of a narrow strip of woodland, then through a tamarack swamp, from there across an open pasture, then through a large tract of woods, with the final lap across an open field.

The first birds were seen at the farmhouse where two feeding-tables are kept well supplied with bread crumbs and suet. Five Blue Jays and ten Chickadees were counted. A few minutes' walk brought our next find, a Downy Woodpecker, and we nailed a piece of suet to a dead tree, an act much appreciated, as a few days later only the nail remained. In the bog, six Chickadees, four Golden-crowned Kinglets, a Brown Creeper and a White-breasted Nuthatch were busily feeding, and, as we entered the big woods, a zigzag line of footprints revealed the trail of a Ruffed Grouse. Everywhere the doings of the wood folk were recorded on the snow. Tracks of squirrels and rabbits formed a network, with here and there the shuffling trail of a porcupine, or the sharp clear track of a fox. A clear, sweet note called attention to a flock of Pine Grosbeaks, ten in number, their rosy hue forming a pleasing contrast to the whiteness of the world around them. Next we were startled by a loud Flicker-like call coming from a big pine not far away, and, approaching carefully, we were able to catch a flying glimpse of a Pileated Woodpecker. Crossing the field, a flock of Snow Buntings came whirling by, in the lightness and abandon of their movement so suggestive of the snowflake. As we neared home, a note was heard, resembling the call of the Pine Grosbeak, but louder and harsher and a moment later the birds



THREE LITTLE SONG SPARROWS

came in sight—a flock of seven Evening Grosbeaks, all males, the most beautiful bird of winter and a fitting climax to a morning's walk. — WENDELL P. SMITH, *Wells River, Vt.* February 2, 1922.

THREE LITTLE SONG SPARROWS

I found the three little Song Sparrows, shown on my hand in

the pictures, in the border of trees that goes almost around our yard.

One morning I found two little birds. They were wet, hungry, and unhappy. I guessed right off from their size and the condition of their feathers that they would be in the nest if their mother had not been killed or caught.

I took them home and put them in a cage. I fed them on milk, bread, and chopped worms. In the afternoon I went to see if there were any more unfortunates of the same family and found one more, very near the place

where I had found the first two. I took care of him with the others and feel very sure they came from the same family.

I fed them every time they cried, which was about every ten minutes.

After they had been with me about two weeks, I put them in the garden all day and back into their cage at night. Soon they learned to come to the cage to go to bed.

When anybody went into the garden when they were there, they all came running and calling to be fed and to be scratched on their heads.

Finally one stayed out over night but came around in the morning. After two nights, the other two stayed out but came back in the daytime.

We could hear them chirping in the trees and garden and sometimes saw them. They stayed around two or three weeks until we went away. After we came back from the seashore, we did not see them any more, but I think I heard them several times.—MARGARET PROCTOR (age 11 years), *Proctor, Vt.*



A GULL TAKING FOOD FROM THE HAND OF A PASSENGER ON A FERRY BOAT IN
SAN FRANCISCO BAY

HERONS OF THE UNITED STATES

By T. GILBERT PEARSON

The National Association of Audubon Societies

BULLETIN NO. 5 (PART II)

EGRET (*Herodias egretta*)

DESCRIPTION.—This is another 'white Heron.' Every feather on its body is white. The legs are black and the bill yellow. (Plate I, No. 1.) From bill tip to tail tip an average specimen measures 41 inches. On the back between the wings grow white, slender, delicate plumes known in the feather trade as 'aigrettes.' These are often 16 inches in length and number about fifty. The birds begin shedding these when the duties of caring for the young become engrossing, and as they drop out gradually, several weeks elapse before all have fallen. In the Egret breeding colonies or 'rookeries,' single shed plumes may be found, sometimes in the nest, sometimes clinging to the bark of trees, or more often lying in the mud or water. Even after the young have become entirely self-sustaining, adult Egrets may be found still bearing several of the 'aigrettes' but now they are frayed and often discolored.

RANGE.—This species of Egret occurs throughout temperate and tropical North and South America. While rare in many states in our American Union, it nevertheless occurs as a summer migrant along the Atlantic Coast as far north as New York and New England. There are records of its breeding in the state of New Jersey, but today none is known to breed north of the central coast country of North Carolina. In the West the most northern nesting range appears to be southeastern Oregon. In the interior of the country they formerly bred as far north as Wisconsin. ('Birds of Wisconsin,' by Kumlien and Hollister, page 35.)

After the nesting period some of these birds wander northward for a time until the approach of cold weather again drives them southward. During the past ten years the records of sixteen such occurrences have been published in *The Auk*, as follows: During the year 1913 the bird was noted on Long Island, N. Y., August 9; at Tiverton, R. I., August 15; and at two places in Massachusetts, viz., Naushon Island, July 20 and August 11; and Martha's Vineyard, July 22. No further records appear until 1916 when three birds spent the summer in Van Cortlandt Park, New York City, and another appeared on Long Island. On August 3 of that year a specimen was found in Dundas county, Ontario, Canada. A 'flock' of Egrets was reported at Elizabeth, N. J., August 4, 1917, and another bird appeared at Branchville, N. J., August 4, 1918. They were seen at Lenox, Mass., August 8, 1919. In 1920 the species was reported from Scarborough, Maine, July 18, and at South Orleans, Mass.,

July 26 and 29 and August 2. Seven Egrets were in the vicinity of Prout's Neck, Maine, July 15 to September 6, 1921. One was seen on Long Island July 22, three at Essex, Mass., August 19, and a flock of twenty was reported from Saybrook Point, Conn., September 4 of that year.

All of these records, it will be noticed, refer to Egrets frequenting eastern United States and chiefly were found on or near the coast.



EGRET BROODING ON NEST, IN ISLAND HOME OWNED AND PROTECTED BY THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES, ORANGE LAKE, FLA.

Photographed by O. E. Baynard

I have been able to find little data showing summer migration northward in the Mississippi Valley country. Records of the Pacific Coast appear not to be numerous. From *The Condor* we learn that a flock was observed near Maxwell, Calif., on August 18, 1918. In the same locality thirty birds were noted on September 8 and others on September 15, 17, and 25 of the same year.

Some time ago this office received a report that Egrets were breeding in southeastern Virginia. Apparently this statement has not as yet been verified by any ornithologist. The most northern breeding colony known at this time, therefore, in eastern United States, we consider to be the one situated on

Craney Island, Carteret County, N. C. The same place is the most northern spot where Snowy Egrets are known to rear their young. Possibly 75 pairs nest on Orton Plantation, Brunswick County, N. C. (BIRD-LORE, 1920, p. 255). On the preserve of the Santee Gun Club, near the mouth of the Santee River, South Carolina, a very interesting group is being protected by one of our agents. By a very careful counting of nests made in the summer of 1922, the warden estimates there were 460 birds in the colony. During the past season we also protected about 45 pairs of nesting Egrets near Mt. Pleasant, S. C.

On Ossabaw Island, Ga., the writer and H. B. Skeele found at least 200 nesting Egrets on April 12, 1922, and perhaps one-fourth this number on St. Catherine's Island, Ga., the next day. (BIRD-LORE, 1922, p. 185.) The species undoubtedly was breeding on Cumberland Island, Camden County, Ga., in May, 1921 (*Wilson's Bulletin*, 1922, p. 85).

In Florida, where these birds formerly were extremely abundant, their numbers have been so depleted that over a considerable area of the central part of the state they are today very rare. (BIRD-LORE, 1922, pp. 182, 183.) The past season about 60 made their nests on an island owned by the Association in Orange Lake, Alachua County, and a few occupied a bushy pond some miles west of Micanopy. Back of Port Orange, Fla., our warden estimated 600 birds bred the past season. There are some scattered colonies throughout southern Florida, but these are shot so continually and the birds so disturbed that it is difficult to get any correct estimate of their numbers. We can only say that they appear to be a dying race in that territory. In Jefferson County, and situated near Tallahassee in western Florida, there at this time exists what is regarded as the largest breeding group of these birds known in the United States. Our wardens reported that in the two rookeries here there were at least 11,000 breeding birds in the season 1922.

In Cameron Parish, La., Egrets in the known colonies are supposed now to number about 150 pairs. (BIRD-LORE, 1922, pp. 400, 401.) In May, 1920, I saw Egrets in the neighborhood of some of the Heron colonies in Wilkinson County, Miss. No nests were discovered. There is a small colony in west Feliciana Parish, La. About 50 pairs still persisted in the Heron rookery on Wolf Point Ranch, Matagorda Bay, Texas, in May, 1920 (BIRD-LORE, 1920, p. 321).

For some years Egrets have been rearing their young at two points, one in, and the other just north of the Malheur Lake Bird Reservation in south-eastern Oregon. William L. Finley, who discovered and reported these birds, states that in 1919 he estimated the number at about fifty.

The above must not be considered as a complete census of the location of the breeding colonies of Egrets in the United States, but represents the information on the subject on file in the office of the National Association of Audubon Societies at the present time.

GENERAL NOTES.—The Egret is perhaps the most striking form of animal life one may find about the southern lakes and swamplands. Its large size, together with its pure white plumage, causes it to stand out for a long distance in the landscape. In the shallow waters of the open marshes and ponds it gathers its food, wading slowly about in typical Heron fashion, and with lightning-like rapidity striking out now and then to secure the luckless frog, fish, or other small form of water life that may be lurking near. When hunger is satisfied, the bird at times draws up one foot and rests in the shallow water, but more frequently flies away to adorn the top of some distant tree.

Except in the nesting season, they are not, as a rule, gregarious, and yet a favorite feeding-ground may draw them in more or less numbers. They come together for breeding purposes, and the stick nests, with their four or five blue eggs, are placed in bushes or trees, usually over water.

The Egret has long been shot for its 'aigrette' plumes. This is the reason why for the past twenty years the Audubon Society has been employing guards in an attempt to protect their breeding-places in the Southland. Al-



GREAT BLUE HERON AND NEST
Photographed by Finley and Bohlman

though the Audubon law makes it illegal to kill them in every state where they are found, and the state and Federal laws prohibit the sale of the feathers, the slaughter of the birds still continues and there is quite a flourishing contraband business in their plumage. For the feather trade the birds are killed exclusively during the breeding season, which, of course, means there is thus carried on a war of extermination, as unsupported by the parents the young must of necessity quickly perish.

Many prosecutions have been conducted of recent years by the Federal Government and various state authorities, in apprehending agents of the millinery trade who have been killing the birds or attempting to ship their feathers. Our Association has been able to coöperate financially and otherwise in this work. The authorities also have been more or less successfully combating the aigrette traffic in the northern states and many convictions have resulted in the courts. The plumage of a single Egret in Florida today often brings as much as \$25. Tourists buy these from hunters at such winter resorts as Miami, Palm Beach, and Fort Myers. As long as it is possible to secure such a price for the feathers of a single bird it will of course be a strong temptation for men living in the southern swamps to profit by what they regard as a legitimate natural product to which they feel entitled.

This Association has been fighting through the long years to preserve this magnificent bird to the fauna of the United States. Had the species been deprived of the Association's long-continued efforts it would doubtless be on the verge of extinction in our country today.

GREAT WHITE HERON (*Ardea occidentalis*)

The Great White Heron (Plate I, No. 2) is about the largest, if not the largest, of North American Herons. In birds of this character there is much individual variations in size. Ridgway states that they range from 45 to 54 inches in length (bill tip to tail tip). Audubon wrote that while young the white plumage has a creamy tinge, but the adult birds are pure white. They do not bear the delicate 'aigrette' plumes like the Egret, but there is a group of pendent feathers from the upper breast and an elongation of feathers on the back of the head similar to those worn by the Great Blue Heron during the breeding season.

This is undoubtedly the rarest of the Heron family within our borders, and it seems to be confined almost, if not quite, to southern Florida. Here it is not infrequent to meet with it along the Keys extending from the mainland to Key West and beyond. The species also is found in some regions to the south, as Cuba, Jamaica, and Yucatan.

Late in April, 1906, the writer found seven of these birds on Bird Key near St. Petersburg, Fla., an island later set aside as a Government bird sanctuary under the title 'Indian Key Bird Reservation.' There were four nests here

at this time, located near the margin of the island in the mangrove bushes at a height of from 12 to 15 feet above the mud. One nest contained three blue eggs; the others were not examined. This is the farthest western point of which our office has knowledge of the occurrence of the species on the Gulf Coast. Henry W. Fowler reports (*The Auk* 1906, p. 397) finding the bird at Boco Grande, 70 miles south of the writer's Bird Key record. J. Maurice Hatch (*The Auk* 1896, p.172) reports one being killed at Escondido, Calif., in April, 1895.

Audubon studied the Great White Heron extensively in southern Florida in 1835, and, in fact, it may be mentioned that he was the naturalist who first discovered it. He stated that these birds never go inland.

Howell (*The Auk*, 1921, p. 254) reports seeing one in Royal Palm Hammock, near the southern tip of the Peninsula, January 15-18, 1918, and also states that a pair nested there in 1916. And further "One young was raised and the family remained in the vicinity till the summer of 1917."

This stately Heron is usually very shy, and as it feeds on the open tide flats it can see the approach of man or boat at long distance, usually taking wing while the intruder is yet well out of gun-shot.

Audubon, who reared some of the young from the nest, speaks of the great force with which they will deliver blows with their bills. On one occasion a captive Great White Heron struck and instantly killed a Ward's Heron. Watching the habits of two or three transported from near Key West to the yard of Dr. Bachman, in Charleston, he says: "In the evening or early in the morning, they will frequently sit like pointer dogs, on moths which hover over the flowers, and with well-directed stroke of their bill, seize the fluttering insect and instantly swallow it. On many occasions they also struck at chickens, fowls, and Ducks, which they would tear up and devour. Once, a cat which was asleep in the sunshine on the wooden steps of the veranda was pinned through the body to the boards and killed by one of them. At last they began to pursue the young children of my worthy friend, who therefore ordered them to be killed."

Audubon also spoke of the difficulty in providing sufficient food for them while in captivity. "They swallowed buckets of mullet in a few minutes, each devouring about a gallon of these fishes."

GREAT BLUE HERON (*Ardea herodias*)

The Great Blue Heron (Plate I, No. 4) is one of the largest Herons in North America, and undoubtedly it is known to more people than any other representative of the Family Ardeidæ. While its coat contains many colors, the general tone of the plumage, especially at a little distance, is slaty blue, hence the name 'Blue Crane' by which it is known in many parts of the country. 'Poor Joe' is a fanciful name sometimes used.



IMMATURE GREAT BLUE HERON
Photographed by Finley and Bohlman

Individuals vary much in size but the length usually ranges between 24 and 50 inches. When the wings are fully expanded the distance across them from tip to tip is nearly 6 feet. The extraordinary long legs and neck, together with its large size, cause the bird to attract universal attention wherever seen, and many are annually killed by irresponsible gunners, either through ignorance or a disregard of the state and Federal laws that protect them.

RANGE.—Great Blue Herons are distributed over most of the North American continent, occurring from Alaska southward through the coast country of Washington, eastward through central Manitoba, northern Ontario, and Prince Edward Island. In the region lying southward of this it may be found in suitable localities down to the Gulf of Mexico, northern Mexico and Lower California. In the winter it inhabits the territory from the Middle States southward to the West Indies, Panama, and even Venezuela.

Three races or subspecies of the Great Blue Heron are recognized. In addition to what we might call the type bird, which covers most of the continent, there is the Northwest Coast Heron (*Ardea herodias fannini*) found on the Pacific Coast from Prince William Sound, Alaska, to Washington, and the Ward's Heron whose range appears to be confined to Florida and along the Gulf Coast of Texas. These two subspecies vary slightly from the type

form in the matter of color and size, but the differences are so slight that the average observer would not detect them in the field. We will here consider them collectively as the Great Blue Heron.

GENERAL NOTES.—The Great Blue Heron is an inhabitant of wide swamp-lands where it may be seen standing motionless in the shallow water or flying across the landscape with strong, deliberate wing-stroke. It comes to the margins of ponds and lakes for its prey, or borders of pools and streams that wind through swamps, and in the extensive salt marshes along the coast. It is not a bird of the sandy beaches. It feeds also along branches and small creeks where these run through meadows and farmlands. When startled it emits a hoarse croak, frequently repeating this many times until the distance between



NEST OF GREAT BLUE HERON WITH THREE YOUNG—BRADBURY ISLAND, MAINE

Photographed by E. H. Forbush

itself and the intruder becomes so great that its distress of mind is no longer expressed vocally.

It is rarely safe to lay down a general rule regarding any particular activity of a wild bird. For example, one might readily assume that the Great Blue Heron always catches its prey while wading in shallow water, and so far as my experience goes, this has been the case with one exception. Some years ago, while waiting on a plantation dock for a steamer on the Cape Fear River, North Carolina, I observed a number of these birds feeding in a most unusual manner. Some distance from the shore a number of old pilings were serving as perches. From here they would spring off into the water and as the current carried them down I could see them continually striking with their bills as if in the midst of a school of small fish. After drifting 50 yards or more they would rise and return to their stations only to repeat the maneuver. After watching this astonishing performance the writer would naturally be slow to lay down a fixed rule as to the manner in which the Great Blue Heron procures its food.

On its menu must be listed frogs of many species and sizes, also water insects, water-snakes, and vast numbers of fishes. The size of the fish taken at times is surprising. In a Heron colony in Cameron Parish, La., in May, 1920, I picked up black bass regurgitated in my presence by a young Blue Heron still in the nest that weighed not less than a pound and a half each. In a North Carolina rookery a young one regurgitated a section of an eel 11 inches in length. Complaint is often made that this bird is very destructive to game-fish and at times and places this undoubtedly is true. In some states legal provision is made for killing such birds when they become an habitual nuisance at a fish hatchery. On the other hand, it is claimed the fish enemies which they destroy in some regions outweigh their damage to



A SECTION OF A NESTING COLONY OF GREAT BLUE HERONS—MAKEPEACE RESERVOIR, N. J.

Photographed by T. Gilbert Pearson

the game-fish. For instance, water-snakes are very destructive to young trout and these Herons are very fond of water-snakes. In territories they usually inhabit in numbers, the vast areas of lakes and marsh lands produce fish in such enormous quantities that it may safely be said that nature has provided enough for both the birds and mankind, and, of course, many species of fish eaten by Herons are not ordinarily consumed as food by human beings.

The nesting habits of the Great Blue Heron show a wide range. Sometimes, in a tall tree situated in a swamp or heavy woods, one may find a single bulky nest. Usually they gather in colonies, and here may be found breeding in close proximity half a dozen pairs or maybe twenty,—perhaps even fifty or more. Year after year the birds return to the same nesting place, and if not unduly disturbed, their descendants may continue to resort to this ances-

torial breeding-ground. In eastern and central United States the nests are made in trees. On the margin of Klamath Lake, in northern Oregon, in company with William L. Finley, I visited a colony of at least 200 pairs of Great Blue Herons that were breeding out in the marshes. Their nests were made of tule rushes, in piles built up from 1 to 3 feet above the ground, and as the intervening marsh was all trampled down, this great series of altar-like nests presented a picture suggestive of a Flamingo city with its high mud nests.

Great Blue Heron colonies are known to bird students and others all over the country. There are several in New England, one of these situated on Bradbury Island, Maine, was visited by William P. Wlarton, E. H. Forbush and the writer in July, 1914. There were about a dozen occupied nests and probably twice as many Black-crowned Night Herons were breeding in the same heavy evergreen forest.

On June 1, 1919 I visited a colony of Great Blue Herons nesting at Makepeace Reservoir near May's Landing, New Jersey. In building the reservoir years previously rows of white cedars had been inundated. Two or three groups of these dead trees were at this time adorned with nests of Great Blue Herons. About 66 occupied nests were counted. They were situated at distances of from 12 to 40 feet above the water. Five nests of the Green Heron also were discovered.

Through the southern states it is very usual to find these birds associated with other Herons. Sometimes they occupy a separate and distinct part of the rookery. At other times nests are scattered about among those of the other Herons. Cypress trees are often used as nesting sites. Also oak, long-leaf pine or any other species that may be convenient are not overlooked.

On the islands along the coast of Texas, where trees are not available, the birds build their nests on the dry parts of the islands. I have found here as many as 75 in one day, and not a single nest with its eggs or the young had an elevation of more than 18 inches from the ground. In fact, some eggs were actually lying on the earth, or protected from it by a very scant layer of dried reeds or grasses. Elsewhere on this coast nests were located in mesquite bushes or supported by the prongs of the prickly pear cactus.

WURDEMANN'S HERON (*Ardea wuerdemanni*)

The Wurdemann's Heron (Plate I, No. 3) is a bird concerning which little is known. It is very rare and is today generally supposed to be a color phase of the Great White Heron. Some have suggested it may even be a hybrid between the Great White Heron and the Ward's Heron. In appearance it suggests a Ward's Heron but with a white head and upper neck. It is generally believed to be confined to southern Florida where it has been studied by Chapman and others. Robert L. Ridgway ('Natural History Survey,' Illinois, 1895) speaks of seeing one on several occasions near Mount Carmel, Ills.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by T. GILBERT PEARSON, President

Address all correspondence, and send all remittances, for dues and contributions, to the National Association of Audubon Societies, 1974 Broadway, New York City. Telephone, Columbus 7327

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Any person, club, school or company in sympathy with the objects of this Association may become a member of it, and all are welcome.

Classes of Membership in the National Association of Audubon Societies for the Protection of Wild Birds and Animals:

\$5 annually pays for a Sustaining Membership
\$100 paid at one time constitutes a Life Membership
\$1,000 constitutes a person a Patron
\$5,000 constitutes a person a Founder
\$25,000 constitutes a person a Benefactor

FORM OF BEQUEST:—I do hereby give and bequeath to the National Association of Audubon Societies for the Protection of Wild Birds and Animals (Incorporated), of the City of New York.

NEEDED, A HOME FOR THE AUDUBON SOCIETIES

This Association is today the largest membership organization in the world having for its objects the study and protection of wild birds and wild animals. It is doubtful whether the general public realizes the full extent of the Audubon Society's influence, both in this country and abroad. This could, however, be increased greatly and the Association's usefulness augmented to a large degree if the headquarters should once be installed in a building adequate to its needs. Such a building should provide suitable accommodations for the following:

Library of Conservation and Natural History

A room, ample in dimensions, should be provided for the invaluable library of ornithology and general natural history, as well as various phases of conservation of wild life which has now grown to some 1,200 volumes, and which is rapidly increasing. No place in America does a public library exist today that contains so much rare and unreplaceable data dealing with the conservation of wild birds and animals, and it should be stored in a fireproof building where it may be accessible to the students of today and to those who

come after. At the present time nearly half of our library is in boxes in a storage warehouse, there being no space left in the offices in which to keep these volumes.

Photographic Exhibits

There is a continuous demand for specific knowledge in the matter of making bird sanctuaries on private and public estates. We should have exhibits and large photographs illustrating the character and appearance of sanctuaries and bird reservations, as well as opportunity to exhibit the 140 original color paintings of America's leading bird artists now in our possession.

Museum of Conservation

Always interesting to the general public is an exhibition of the various species of birds, which are now, or which have been extensively used in the millinery feather trade. Quantities of these have been seized from dealers by the State and Federal authorities and presented to the Association. There is hardly a bird-lover but what would be astonished at the wide range that this traffic has taken, and the finished feather products with the trade names are of much educational



SECTIONS OF PANORAMIC PHOTOGRAPH TAKEN OF SOME OF THOSE
ATTENDING THE ANNUAL MEETING OF THE NATIONAL ASSOCIA-
TION OF AUDUBON SOCIETIES, HELD IN NEW YORK CITY, OCT. 31, 1922

value to all bird-students. We could show punt-guns, traps, snares, nets and other illegal devices used in taking wild birds.

Apparatus for Attracting Birds

Many people come to the offices of the Association hoping to see on display the various types of bird-houses manufactured in this country for attracting different species of birds. They also want to see the different types of feeding-trays and drinking-fountains. Sometimes they want to know the appearance of berry-producing shrubs or trees that may be planted to attract the birds about the home. These and similar objects would provide a most interesting and highly instructive display, and would bring many visitors to headquarters where they would come in touch with the various operations of the Audubon Societies.

Assembly Hall

It would mean much to school teachers and many other groups of people interested in bird-study if at the headquarters there was an assembly hall where lectures and meetings might be held with exhibition of lantern slides and moving pictures. This would make an ideal place for such gatherings. With the Library of Conservation, Museum and Exhibition Hall there would be a wealth of opportunity for increasing interest in the study and protection of wild life.

More Office Space

Most profoundly does the Association need more office accommodations. At the present time eighteen clerks are crowded into two rooms, and we have reached the absolute limit of accommodations for more desks. The rapidly expanding work of the Association demands at once an increased corps of office assistants which could be provided if we had a building of our own.

Storage Room

For the past few years it has been necessary to pay for space in a storage warehouse for a considerable quantity of our material. Time and money could be saved if all the Association's effects could be kept together.

Reception Rooms

Every well-organized home of a civic or educational institution has its rooms where its members and officers and members of affiliated organizations, field workers, and others may find pleasure and comfort when visiting the institution. We have greatly felt the lack of such accommodations.

The Audubon Societies of America have done a tremendous work for the birds and for humanity, but a great obligation is laid upon them to continue their efforts in defending the laws for the protection of wild life and in cultivating public sentiment to better appreciation of the wild birds and wild animals. It is a herculean task to educate one hundred million people away from habits of destruction into the channels of thought that look toward conservation, and it is an equally large task to keep them educated.

The question of providing a building for the Association has often been discussed and the matter brought before the Board of Directors for consideration on various occasions. It has been suggested that some of the general Endowment Fund of the Association might be used for this purpose but this thought was at once rejected. Every dollar of the modest permanent funds which the Association now happily possesses is needed for use in carrying on the battles for wild life throughout the country. It has been remarked that there are many members of the Association anyone of whom is abundantly able to supply the Association with a good building complete. This undoubtedly is true. In any event, the Board now feels that we should no longer delay in bringing the matter before the members and friends of the Audubon Association. There are two ways by which funds for such purpose are made available. One is by gift of some interested friend of ample means.

As a Memorial

What an opportunity here exists for someone to contribute a fund for the erection of a building dedicated to the interests of the wild birds and wild animals! What a fitting memorial this would be to some loved one who, while living, entertained deep sentiment for the feathered friends seen by the

roadside, or when on winter mornings they came to the window-sill for the food kindly provided them.

A Call to Members

The other method of acquiring a building is by gradually accumulating a Building Fund. On December 26, 1922, the Board unanimously voted to authorize the President to issue a call to the members of the National Association of Audubon Societies and to its friends generally for subscriptions to a Building Fund, with the earnest hope that every member of the Audubon Society will feel disposed, if possible, to aid in this undertaking. It may take a year, it may take several years to secure a sum large enough to purchase or erect and equip an adequate home for the Association, but every dollar given for the purpose will be carefully preserved and the accumulated interest added to the principal.

At the present time many members make gifts to the Association each year in addition to their membership fees. For a large percentage of the members it would surely not be difficult to add something for a Building Fund when paying their annual dues, or at such other time as might best suit their convenience. The membership of the National Association today constitutes a large and influential group in the United States, and if a considerable proportion of these will make a point of setting aside even small contributions for this cause, the Building Fund will grow rapidly and the day will come when, without any real financial burden or hardship on anyone, an adequate home can be erected to meet the urgent needs and maintain the prestige of the National Association of Audubon Societies in America.—T. GILBERT PEARSON, *President*.

BIRD-BANDING AS A MEANS OF BIRD STUDY

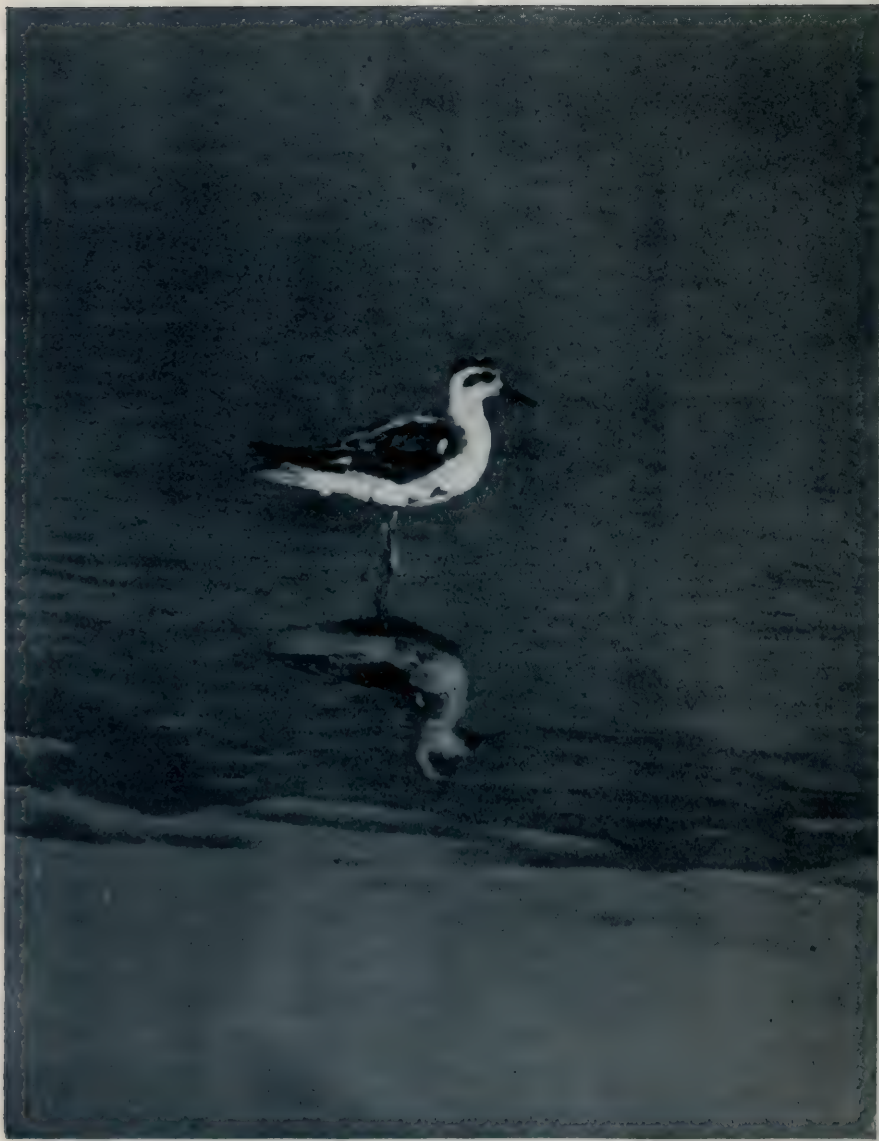
Bird-banding as an aid to ornithological research is today attracting wide attention on the part of bird-students in this country. This work is being carried on under Government supervision and great care is exercised to make it of the greatest possible value to the advancement of scientific knowledge and to insure the safety and well-being of the birds that constitute the subjects for study. Bird students are being selected by the Government in various parts of the country to engage in this effort, and the Government has devised a special trap by which the birds may be taken without injury.

Just above the foot of each captured specimen there is placed an aluminum band bearing a number, and each student engaged in the work reports his banding operations to Washington. When, in the course of the year, he may capture birds bearing bands that have been previously placed, either by himself or others, these reports likewise are sent on to headquarters. Bands are frequently found on Ducks and other game-birds killed by sportsmen during the legal hunting season, and these are reported.

Those who have engaged in bird-banding

report enthusiastically on the results thus far attained, and look forward with the greatest expectations to solving many problems regarding bird-life which have as yet never been revealed. For example: Do young birds return to the same neighborhood in which they were reared? How far do individual birds travel during migration and at what rate do they proceed? Today we have extremely little knowledge about the length of life of various species. Bird banders will undoubtedly in time be able to throw much light on this problem.

Audubon experimented with bird-banding one hundred years or more ago and tells of placing silver thread about the legs of young Phœbes. In Europe bird-banding has been practiced more or less systematically since the German Ornithological Society took up the matter in 1903. Similar work has since engaged the attention of naturalists in Switzerland, Scotland, and elsewhere. The first organized effort in this country seems to have been made on December 8, 1909, at a meeting of the American Ornithologists' Union in New York City, when was formed the American Bird-Banding Association,



NORTHERN PHALAROPE IN WINTER PLUMAGE
Photographed on the Coast of Oregon by O. J. Murie

under the presidency of Dr. Leon J. Cole. Two years later the work of supplying bands, recording records, etc., was taken over by the Linnæan Society of New York and for several years Howard H. Cleaves, representing the Society, handled the details of the work. In 1922, the Linnæan Society relinquished its bird-banding activities to the Bureau of Biological Survey, of the Department of Agriculture, where, under the

leadership of Frederick C. Lincoln, much impetus has been given to the work.

Mr. S. Prentiss Baldwin, of Cleveland, Ohio, has been the most active individual engaged in bird-banding in this country, and his papers, published in the *Auk* and elsewhere, have created wide interest.

Full information regarding this subject can be secured by addressing the Biological Survey, Department of Agriculture, Washington, D.C.

WILLIAM DUTCHER'S LIBRARY

At various times before his death William Dutcher made known his desire that the natural history portion of his private library should ultimately become the property of the National Association of Audubon Societies, to whose interests he was so sincerely devoted. Upon his death, July 3, 1920, the library, however, passed, by bequest, to his son, Major Basil Dutcher. When Major Dutcher died, January 16, 1922, at Chevy Chase, Md., Dr. T. S. Palmer, First Vice-President of the Association, brought the subject of William Dutcher's wishes to the attention of Major Dutcher's two daughters, Catherine and Carolene, who at once graciously agreed that their grandfather's books should come to the Association. Dr. Palmer and Vernon L. Bailey spent much time in going over the library and selecting such books, magazines, and pamphlets as they thought would be of especial value to the Association. On November 29, 1922, this material was received in New York. Upon

examination it was found to contain books, pamphlets, and volumes of magazines to the number of 311 which have been retained in the office of the Association or through lack of space placed in storage. Several other books, including sets of *The Auk*, *Condor* and *BIRD-LORE* have been turned over to the Massachusetts Audubon Society for use in its office at 66 Newbury Street, Boston.

Among the more interesting volumes received is a large series of state and local lists which are particularly valuable. There were also works by Baird, Brewer, and Ridgway, by Bonaparte, and the text of Audubon's "Birds of America."

Fourteen pictures belonging to Mr. Dutcher came with the library. These include several enlargements of early photographs made of Gulls on the coast of Maine. There was one small original drawing by Audubon, four reproductions of Audubon's plates, and a drawing each by Seton and Fuertes.

FROM THE MINNESOTA AUDUBON SOCIETY

Our spring was very late, so much so that we had a snow blizzard on May 20, which is unusual even in this section. It was very hard upon the bird migrants, which had commenced to arrive about April 28 and were quite numerous by May 5. Warblers, Flickers, and Sparrows showed up in great numbers all over the state, as far north as Brainerd. About May 8, reports came in as to the arrival of Grosbeaks, both Orchard and Baltimore Orioles, Vireos, Maryland

Yellow-throats, Thrushes, Catbirds, Kingbirds, and Flycatchers. Tanagers were very scarce in the reports. All the water-birds were in by the 13th. The Ducks were more abundant this fall than for many years, and Partridges more plentiful than has been known for ten years, owing to protection for two years. Quail were scarce; many died as a result of the snow-storms last winter. Crows, on account of protection having been withdrawn, were killed in great numbers.



THE DUCHESS OF PORTLAND
President of the Royal Society for the Protection of Birds

Farmers, having an idea that they are more injurious than useful, got them off of the protected list.

It is just twenty-five years ago this month since this Society was organized. A few of us have provided the funds to pay expenses. Very many branch societies have been formed through county school superintendents, and I am sure that much good has been done in

the way of educating the public as to the value of birds from an agricultural as well as humane point of view. Dr. Thomas S. Roberts, of the University of Minnesota, deserves much credit for work he has done for the Minneapolis Society. If we had more money to buy literature for distribution through the state, we could do much more good.—JOHN W. TAYLOR, *President*.

THE ROYAL SOCIETY FOR THE PROTECTION OF BIRDS

23 Queen Anne's Gate, London

By the Hon. Secretary, FRANK E. LEMON, M.A., LL.B., J.P.C.A.

In the month of February, 1889, a Society for the Protection of Birds was formed in England. A growing feeling among women, against the killing of birds for the sake of their plumage for millinery purposes, gave it birth, and very quickly many hundreds of bird-lovers rallied to the standard raised by the late Mrs. Edward Phillips, the Duchess of Portland, Mrs. R. W. Williamson, of Manchester, and Miss Hannah Poland, gladly taking the pledge "to refrain from wearing the feathers of any bird not killed for the purposes of food, the Ostrich only excepted."

In 1893 the young Society adopted a constitution drawn up by Frank E. Lemon, barrister-at-law, with the Duchess of Portland duly appointed President, Mrs. F. E. Lemon, Hon. Secretary, and Mrs. Phillips, Chairman of Council. In this capacity Mrs. Phillips was succeeded in 1895 by W. H. Hudson, who in 1896 passed it on to Mr.—now Sir—Montagu Sharpe, K. C., D. L., and he still (November, 1922) occupies that position.

The first meetings of the Society were regularly held in London in the Board Room of the Royal Society for the Prevention of Cruelty to Animals, and much of its early success was due to the generous help and advice freely given by the late John Colam, the secretary and Director of the Royal Society for the Prevention of Cruelty to Animals.

By 1897 the Society had begun to deal with so many varied aspects of the great subject of bird-preservation that an office of its own in London became necessary, and, thanks

to the hospitality of one of its first supporters, the late H. Forbes Witherby, rooms were placed at its disposal at 365 High Holborn, where the secretarial work was carried on. These premises were soon found to be inadequate, and in 1898, on the suggestion of the late Dr. P. Lutley Sclater, a move was made to 3 Hanover Square, and there, until 1909, when that house was pulled down, the Royal Society for the Protection of Birds was the tenant of the Zoölogical Society of London, and received valuable help and much encouragement at the hands of that body.

Before the nineteenth century ended, the Society was becoming well known, not only in Great Britain and Ireland, but among ornithologists in British colonies and dependencies, and on the continent of Europe.

The work was at first chiefly propaganda, carried on by means of numerous leaflets, pamphlets, and letters which were circulated far and wide. Many were the writers who contributed these, foremost among them being W. H. Hudson, who wrote 'Ospreys or Egrets and Aigrettes,' 'A Letter to the Clergy,' 'Lost British Birds,' and 'The Trade in Birds' Feathers.' This last pamphlet was illustrated by a reproduction of the late G. F. Watts' wonderful painting, representing an angel sorrowing over an altar heaped with birds' plumes, whilst a figure, depicting the grinning demon Fashion, is shown below. This picture he dedicated to all who love the beautiful and mourn over the senseless and cruel destruction of bird-life and beauty.

These leaflets were followed by others

from Mr. Hudson's pen, among them being 'Bird-catching' 'A Linnet for Sixpence,' 'A Thrush That Never Lived,' 'On Liberating Caged Birds,' and 'The Tired Traveler.' Mr. Hudson's eloquent pleading brought

wide and powerful support to the cause of bird-protection.

Lectures, illustrated by lantern slides, were also given wherever audiences could be gathered together. The Society had the



SIR MONTAGU SHARPE
Chairman of Council, of the Royal Society

advantage of obtaining from the late Lord Lilford, then President of the British Ornithologists' Union, permission to have slides made from the illustrations in his great work, 'Birds of the British Islands,' in which most of the colored figures are from drawings by that wonderful bird artist, Archibald Thorburn.

Among other friends and promoters of the Society now, alas, no longer living, were many distinguished men and women, too numerous to mention, but no account of the Society could be allowed to appear without reference being made to the help given by Alfred Newton, Professor of Zoölogy at Cambridge University; Howard Saunders,

Colonel Irby, Dr. Bowdler Sharp, J. A. Harvie-Brown, and other ornithologists of world wide reputation. This is neither a Society merely for the prevention of cruelty to birds, nor is it a scientific body occupied with the advancement of ornithological knowledge, though the scope of its activities may be said to cover the practical side of ornithology—the living free bird in its natural relation to man, and man in his relations to the bird. It seeks to induce appreciation of the charm and fascination of wild birds as part of the heritage of the life and beauty we enjoy; and also some knowledge of their value as an essential factor in the welfare of human life. It is the one National Society in Great Britain working solely for the intelligent preservation of wild birds, and especially the protection of rare species from the collector, the bird-catcher, the egg-hunter, the man with a gun, and the plume-hunter.

The Society was incorporated under Royal Charter and, thanks to the ability and sound judgment with which the charter and by-laws, were drawn up by Sir Montagu Sharpe, the Privy Council approved the Society's application without demur, and at Westminster, on November 3, 1904, the charter and statutes were signed by King Edward VII. Previous to this time, Royal sympathy had not been lacking, as both Queen Victoria, and Queen Alexandra, then Princess of Wales, had expressed interest and good-will. It was in September, 1899, that, by an order signed by Queen Victoria, Egret plumes were abolished from the headdress of officers of certain British regiments, and in 1906, Queen Alexandra wrote to the Duchess of Portland, giving permission for her name to be used in the interest of bird-protection, and saying that Her Majesty never wore Egret feathers, and did all in her power to discourage cruelties practised on birds.

It is not possible in this article to give details of the efforts made by the Society to obtain three Acts of Parliament for the protection of birds, and, after the Acts were passed, to make them known, so as to ensure their enforcement. Happily there have always been competent and enthusiastic bird-protectors in both Houses of Parliament, the Right Hon. Sir Herbert Maxwell and

the late Lord Avebury being among the most prominent. Thanks to the persistent efforts made by friends of birds, both inside Parliament and out, the laws for their protection, and the local Orders made thereunder, although to the uninitiated apparently complicated, can be used very effectively, and, in consequence, the status of the avifauna of the British Isles is much more satisfactory now than it was thirty years ago. But a continuance of the utmost vigilance is needed, or irreparable mischief would be wrought through ignorance, thoughtlessness, and greed.

In 1902, bird and tree essay competitions were, under the wise guidance of Sir Montagu Sharpe, inaugurated in the public elementary schools of some English counties. This department of the Society's work has grown enormously and owes much to the skill and zeal of the Secretary, Miss L. Gardiner. The scheme is now recognized by the Board of Education (Government Department), and is welcomed and supported by many county educational authorities. Work of this kind is not only for the benefit of the children of today, but for that of the men and women of tomorrow. Whilst efforts are being made to tempt workers to the land, and to make the countryside a more attractive place for intelligent dwellers, few things can be more helpful than giving rural residents a genuine interest in the country itself. To further practical knowledge of wild life, interwoven with delight in Nature herself, is coming to be regarded as among the most important developments of modern education.

Another leading sphere of the Society's activities is the promotion of bird sanctuaries, established under the statute, as well as the provision and maintenance of watchers to ensure that, in such areas, nesting birds are rigidly protected from molestation or interference. This work was begun in 1898 and subsequently entrusted to the care of a special committee presided over by E. G. B. Meade-Waldo, himself a large landowner and experienced in all that appertains to bird preservation in many countries, as he has traveled extensively and has explored regions which are little known. Being a good linguist he has acquired much out-of-the-way



LORD AVEBURY AS SAINT FRANCIS
Cartoon used by the Royal Society for the Protection of Birds



REPRODUCTION OF A DRAWING USED BY THE ROYAL TO ILLUSTRATE THE
ARRANGEMENT AND USE OF PERCHES FOR BIRDS ON LIGHTHOUSES

but valuable information, so that little concerning bird-life has escaped his notice.

To readers of BIRD-LORE, some further account of the provision of bird-rests at lighthouses will probably be of interest. In his 'Studies in Bird Migration,' W. Eagle Clarke wrote in 1912: "One of the greatest of all dangers to migrating birds is the numerous lighthouses and light-vessels on and off our own and other coasts. These, under certain conditions of weather, are veritable shambles. Those who have not witnessed a 'bird-night' at a light-station cannot form any conception of the appalling loss of life that takes place."

It was supposed that the fate of these migrants was unavoidable until Heer Thijse, the distinguished Dutch naturalist, devised a series of resting-places fitted on to the summit of the lighthouse, and which, without interfering with the illuminating power of the lamps, give lodgment to thousands of weary traveling birds which cling to them in clusters until day dawns, and then, rested and refreshed, they pursue their migratory journey. Hearing of the success which these perches have proved at the Great Terschelling Lighthouse, in April, 1913, the Council of the Society launched a scheme for providing certain English lighthouses with these beneficent devices, and collected sufficient money for this purpose, viz., at St. Catherine's in the Isle of Wight, the Caskette off Alderney, Spurn Head on the Yorkshire coast, and the South Bishop Light off Pembroke-shire, these being situated on the routes of migration. The Elder Brethren of the Trinity House, which is the authority which maintains lighthouses in Great Britain, undertook the engineering and erection of these great racks and perches, their initial cost and subsequent upkeep being defrayed by the Royal Society for the Protection of Birds. It has to be remembered that the

loss of most of these migratory birds is not only a loss of summer song, a lessening of country delight, but is a serious question in the interests of agriculture, as they are almost wholly insectivorous. They include the Swallow and Martin, Nightingale, Blackcap, Whitethroat, Chiffchaff, Willow and Wood Warblers, Flycatchers, Wheatear and Whinchat, Tree Pipit, Yellow and White Wagtails, Swift, Nightjar, Wryneck, and Cuckoo, Corncrake, and Turtledove. In addition to birds such as these, which are entirely absent from Britain in winter, great numbers of Lapwings, Skylarks, Thrushes, and Starlings arrive and depart. In the autumn migration come the Woodcock, Fieldfare, Redwing, Curlew, and wild fowl.

Want of space precludes the possibility of describing international and other conferences on bird-protection promoted by and participated in by the Royal Society for the Protection of Birds, but they have had great influence in directing public attention and opinion toward a proper appreciation of the value, as well as the beauty, of bird-life.

In conclusion, reference must be made to the visit to Europe paid in May and June, 1922, by T. Gilbert Pearson. By his delightful personality and illuminating lecture given in London on June 9, as the esteemed guest of the Royal Society, an impetus was given to the great subject of bird conservation, which must have far-reaching consequences and will, it is hoped and believed, also forge links of friendship which will never be broken, between the bird-lovers of the two great English-speaking nations on each side of the Atlantic, and will eventually bring about the protection of birds throughout the world by means of the newly formed International Committee for the Protection of Birds, of which Mr. Pearson is the President and chief promoter.

**New Life Members Enrolled from
November 1, 1922, to January 1, 1923**

Buckner, M. N.
Bell, Denniston M.
Biddle, Henry W.
Bliss, Miss Susan D.
Borden, Miss A. J.
Brady, Mrs. James Cox
Carlisle, Mrs. Lister
Carpenter, Chas. L.
Catherwood, Wilson
Calfee, Mrs. R. M.
Coe, W. R.
Crosby, Mrs. Pauline H.
Crowninshield, Francis B.
Gilliam, R. A.
Gilliam, Mrs. R. A.
Gilliat, Miss Amelia Osborne
Glisan, R. L.
Hippach, Mrs. Ida S.
Holt, Mrs. R. S.
Marshutz, I.
Moore, Miss Evelyn M.
Proctor, Miss Margaret
Pulitzer, Ralph
Sawtelle, Mrs. J. W.
Schultz, Mrs. Alexander H.
Strater, Mrs. Charles G.
Van Dycke, Dr. Tertius
Wellington, Miss Elizabeth R

**New Sustaining Members Enrolled from
November 1, 1922, to January 1, 1923**

Adams, Ivers S.
Adams, Mrs. M. N.
Adler, Major Julius Ochs
Aiken, Mrs. Frank E.
Alker, James W.
Allen, James Fred
Albrecht, Mrs. A. C.
Alexander, L. M.
Ames, Ward, Jr.
Appleton, Miss Maude E.
Bacon, Mrs. Francis McNeil
Bagley, Frederick P.
Baird, Charles
Baldwin, George V. N., Jr.
Barnes, N. A.
Beach, Wm. N.
Beale, Leonard T.
Beck, Mrs. Walter
Bedelle, Adrien P.
Bein, August
Beir, August
Benn, James S., Jr.
Bennett, F. H.
Berger, Mrs. Charles F.
Bernheim, Dr. Alice R.
Berry, Miss Elizabeth N.
Berwind, Miss Julia
Biddle, Mrs. Charles J.
Biddle, Miss Edith F.

Blabon, Edwin L.
Boardman, Kenneth
Bonnell, Mrs. Henry H.
Boyce, James G.
Boyce, Mrs. James G.
Brady, Miss Ethel W.
Brann, W. L.
Brittan, Mr. and Mrs. Chester K.
Brown, Miss Elizabeth S.
Brown, George, Jr.
Brown, Mrs. Wm. Clark
Brownell, F. H.
Burchard, Mrs. Anson W.
Byrne, James
Caesar, Charles U.
Calkins, Miss Emma W.
Caplin, Harry
Carnegie, Mrs. George L.
Cauty, Frank H.
Chambers, Geo. J.
Chapman, Miss Beatrice O.
Chubb, Mrs. F. Y.
Colebrook, Charles B.
Coler, Bird S.
Cook, Mrs. Edward H.
Cornell, Mrs. H. P.
Corroon, Richard A.
Cowl, Clarkson
Crobaugh, S. Chester
Crocker, C. T.
Cross, Miss Mary R.
Daniels, E. J.
Darrell, Miss Sallie
Dauby, Mrs. N. L.
Davis, Clinton W.
Dietz, Mrs. Howard J.
Dillon, Herbert Lowell
Doob, Mrs. M.
Dreher, Mrs. Oscar
Eastwich, A. T.
Ede, St. Clair
Edwards, E. P.
Elandi, Miss Rita
Ellsworth, Thomas
Evans, Mrs. Raymond W.
Ferguson, Forrest
Fleming, Miss Elizabeth B.
Foreman, Miss Stella
Fox, Joseph Carrera
Fraser, Donald
Gaggin, Verner S., Jr.
Gottfried, Miss Helen
Griffin, Mrs. S. B.
Grinnell, Miss Geraldine
Hackenberg, H. E.
Harper, John M.
Hart, William F. S.
Hartley, Mrs. R. M.
Hayes, Mrs. Scott R.
Henry, L. H.
Hoag, P. L.
Holder, Dr. Warren S.
Hoover, F. E.
Houghton, Miss Caroline
Howarth, J. W.

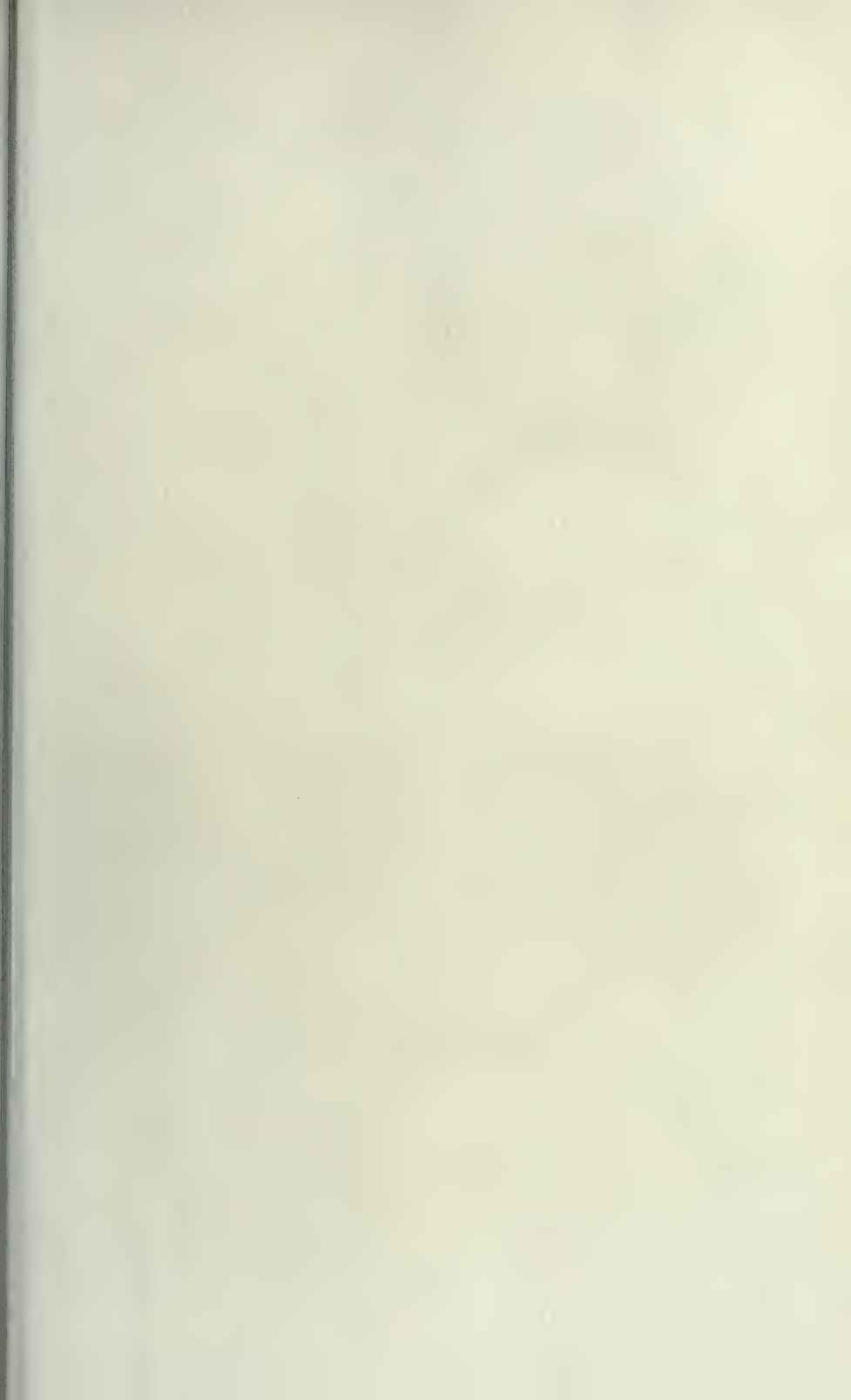
Hoyt, Henry W.
 Hunter, Mrs. A. I.
 Johnson, Mrs. F. C.
 Keen, Miss Hester
 Kennedy, J. J.
 Lacy, Robert
 Lamont, Mrs. R. P.
 Larsen, Miss Agnes
 Lathrop, Mrs. E. P.
 Lobdell, R. N.
 Long, Mrs. John R.
 Luquer, Miss Eloise P.
 Lurman, Miss Katharine
 Luthe, Charles J., Jr.
 McKelvy, Mrs. Robert
 Machen, Mrs. Arthur W.
 Mansfield, Mrs. Alice E.
 Mayo, Mrs. Elizabeth
 Miller, Miss Bertha S.
 Miller, Miss Ida H.
 Moore, Mrs. Thos. L.
 Morrison, R. T.
 Murphey, J. Stafford
 Murphy, Thomas D.
 Onondaga Co. Bird Club (Syracuse
 N. Y.)
 Perry, J. M.
 Piper, Fred W.
 Platt, Mrs. Ellen B.
 Porter, Sam S.

Poucher, F. C.
 Preston, Mrs. L. B.
 Price, Charles R.
 Reimer, John B.
 Richards, Ellis G.
 Rieser, Mrs. Herman
 Schaefer, Frédéric M. E.
 Schielinger, Adolph C.
 Schnabel, Miss Adeline M.
 Seyfert, Mrs. William
 Shinn, Miss Bertha L.
 Simons, W. C.
 Spitzer, C. B.
 Stephens, Mrs. S. H.
 Strickler, Charles M.
 Taylor, Mrs. Lloyd
 Thayer, Nathaniel
 Tobias, Mrs. C. H.
 Tullock, Mrs. Gilbert
 Tyler, Mrs. E. B.
 Tyrrell, W. H.
 Weber, Henry L.
 Webster, Mrs. Edwin S.
 Wehr, Mrs. Albert H.
 Whitehouse, Mrs. J. H.
 Whiting, J. H.
 Whiting, William J.
 Wilberding, Mrs. J. C.
 Wood, Howard, Jr.
 Woodruff, Prof. Lorande Loss



YELLOW-LEG

Photographed by Dr. Frank N. Wilson, Ann Arbor, Mich





1. ORCHARD ORIOLE. ADULT MALE, SUMMER
2. ORCHARD ORIOLE. ADULT MALE, WINTER

3. ORCHARD ORIOLE. IMMATURE MALE
4. ORCHARD ORIOLE. FEMALE

Bird-Lore

A BI-MONTHLY MAGAZINE
DEVOTED TO THE STUDY AND PROTECTION OF BIRDS
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. XXV

MARCH—APRIL, 1923

No. 2

Two Nest-Studies of McCown's Longspur

By A. DAWES DuBOIS, Springfield, Ill.

With Photographs by the Author

ONE does not often find *Rhynchophanes mccowni* nesting in his own back yard. Hence the finding of two nests in such a situation on two successive days was an invitation to closer acquaintance which I could not well decline.

My 'yard' was on a prairie bench in Teton County, Montana. Its 'lawn' was of buffalo grass and bluejoint—the virgin sod of the prairie. The first nest was on the slope of the knoll upon which the homestead shack was located. It will be referred to, in the notes which follow, as the 'slope nest.' The second nest was but a few feet from the edge of the garden plot and may therefore be appropriately known as the 'garden nest.'

An observation blind was employed at the slope nest but the notes and photographs at the garden nest were secured without any attempt at concealment.

In the following account the notes of each nest have been set apart from those of the other. With this exception, and with some amplification, the observations are given as they were recorded in my journal a few years ago.

THE SLOPE NEST

June 28. On the slope of the knoll, a short distance west of the house I flushed a female McCown's Longspur from four fresh looking eggs. The nest was in the native prairie grass. A young bird, fully grown and 'on the wing,' was on the ground near her and was presumably her offspring, from an earlier nest, although no more definite evidence could be secured to prove this assumption.

July 2. The slope nest still contains four eggs. The tripod-tent, previously placed, has been moved much closer so that the lens-hole is scarcely three feet from the nest. I spent some time in the tent observing the female while she sat incubating, and once I was surprised to hear her begin to sing. She

sang a very pleasing little song; then suddenly her mate dropped into view, walked up to her and gave her a large insect, apparently a grasshopper with amputated legs.

July 5. A morning vigil in the tripod-tent resulted in a photograph of the female sitting on the nest—a side view with the shadow of a grass blade



(THE GARDEN NEST.) THE FEMALE LONGSPUR ON THE NEST, BROODING, AND THE MALE DIVIDING GRASSHOPPERS WITH HER. HE HAD TWO GRASSHOPPERS IN HIS BILL AND HE GAVE HER ONE OF THEM. JULY 12.

on her head. In the afternoon the camera caught the male feeding his mate in the nest, and also another view of the female facing southeast. On this occasion, when her mate approached she again sang a little twittering, musical song. She turns around very often in the nest, and sometimes erects the feathers of her crown.

July 8. The nest contains three young and one egg, and the female is brooding. This afternoon I spent about an hour in the tent. During that time the male did not show himself. The mother bird stood in the nest shelter-

ing the young from the sun, but she left every few minutes to go for food for them. She did not regurgitate, but brought them solid food from the first. I could not see the exact nature of the food, for she invariably stood between the nest and the tent, with her back toward me, when she fed the young.



(THE SLOPE NEST.) THE MALE LONGSPUR, AS WELL AS THE FEMALE, GOES ON THE NEST AFTER FEEDING AND STANDS WITH HIS WINGS PARTLY SPREAD, IF THE SUN IS HOT, UNTIL HIS MATE COMES TO RELIEVE HIM. JULY 10.

Her signal for them to take food was a brief twitter. The young, which must be less than twenty-four hours old, have a note which can be easily heard from the tent: it is a clear 'peep.' They frequently give utterance to it while their mother is standing in the nest shading them. At times, while she is over them, they stretch up their open mouths and she responds by touching them on the mandible or on the head with the tip of her bill. She stoops to

look under herself very frequently while brooding, and several times inserted her bill into the midst of the nest and shook or vibrated her head violently as though tugging at something. Apparently her head was between the young and she may probably have grasped the nest bottom with her bill. Is this a vibratory treatment to aid metabolism or to assist in releasing the chick from the unhatched egg?

As the parent stands on the nest in the hot sun, she usually keeps her mouth open, panting. Her breathing is rapid, and when there is no wind her puffing is audible.

The newly hatched young are covered above with fluffy, buffy-white down, about one-fourth inch long. It is distributed, of course, on the feather tracts only, but gives the appearance of completely covering their bodies. A double bunch grows on the forehead, two little tufts side by side on the back of the head (occiput), two bunches on each wing, a strip along the middle of the back, and a bunch on each side just behind the hip joint; there is none whatever on the under parts. The inside of their mouths is a strong pink color.

July 9. The fourth egg hatched last night and the youngster looked the same as the others this morning. During the afternoon, from three until five o'clock I stayed hidden in the blind and made the following notes: Both parents are feeding the young and are giving them the bodies of grasshoppers which are very large for the young to swallow, so that they sometimes must make several attempts. They also feed other material the nature of which I cannot fully determine. I thought I recognized a spider as it went into one of the throats.

The male, as well as the female, goes on the nest after feeding and stands with his wings partly spread, if the sun is hot, until his mate comes with more food to relieve him. She then takes his place and remains until he returns. They feed very frequently. It is certain that they do not feed by regurgitation at all, although the youngest nestling is much less than twenty-four hours old.

July 12. This evening after supper I watched for a while from the tent-blind. Both parents were feeding hastily and in rapid succession. A thunder shower was brewing, night was coming on, and drops of rain, striking the nestlings made them stretch up their heads and open their mouths when both parents were away. The female sat on the nest a few minutes between meals, and the thunder did not seem to startle or disturb her. The food which was brought to the young consisted of grasshoppers, a moth, and small stuff which could not be determined. The excrement was sometimes swallowed and sometimes carried away, the two methods in about equal proportion.

The position of the male while brooding is to stand astride the nest with a foot on each side, at the rim, the young filling the cavity between. Once, while the female was brooding, the male came with food which he fed to the young at her side. At another time under similar circumstances he gave the food to his mate and she fed it to the young under her breast, the food being

nearly always grasshoppers. On one occasion, after feeding, the female stood at the edge of the nest facing the young, and, stooping over them, sang a little warble close to their heads while the male was approaching with another ration. She was obviously tired and sleepy, as she frequently yawned and dozed while brooding in the short intervals between feedings.

The nestlings now have the feather tracts well sprouted on their under



(THE GARDEN NEST.) THE MALE LONGSPUR STANDING OVER THE NEST, HIS FEATHERS FLUFFED, TO SHADE THE YOUNG FROM THE SUN. JULY 11.

parts, a longitudinal band along each side. Darkness was settling its mysterious shroud over the prairie when I left the blind.

July 13. This morning the slope nest is empty and its lining has been torn out. Some night marauder has brought a tragic ending to this little chapter of bird-life. It was probably a skunk, for I saw one last night after I had left the nest.

THE GARDEN NEST

June 29. This nest was found by flushing the female. She is minus the right half of her tail, a deficiency which gives her a sorry appearance. Two young birds, able to fly, were in the grass near her; the nest contains four eggs which are apparently incubated.

July 1. The male of the garden nest has an habitual perch on an old kettle which has lodged at the edge of the garden some twenty feet from the nest. The kettle and Longspur combination, although perhaps picturesque, struck

me as rather incongruous and I replaced the kettle by a rock which pleased me better and seemed to suit the Longspur just as well. He came repeatedly to perch there after descending from his song flight or returning from an absence unaccounted for. This male seemed so little afraid of me that I placed the camera on a low support near the rock, without any attempt to conceal or camouflage it. From time to time it was moved closer, until, by dint of patience and a black thread, three photographs of the bird on the rock were added to my collection. One of these caught him singing softly to his mate while she sat on the nest near by. This song was not intended for other ears than hers; it was so soft and delicate that I could scarcely perceive it.

After the third picture had been taken, I saw a ground squirrel (Richardson's spermophile) running straight toward the rock upon which the male Longspur was sitting. The bird squatted close to the rock until the unsuspecting ground squirrel had almost reached it, then made a sudden jump at the squirrel and followed it as it ran away, striking it several times on the back. When the wind is very strong, as it often is on the prairie, the Longspur finds it necessary to squat close to the rock to avoid being blown off.

The parachute descent of the male from his song-flight was today observed to be perfectly vertical. However, it is not always or usually so. The song-flight of McCown's Longspur is one of the bird's distinctive characteristics. The Chestnut-collared Longspur has a little song-flight also, but it is not very notable and lacks the parachute descent.

July 5. There were three young and one egg in the nest this morning and the fourth egg hatched today.

July 6. While I was stationed at a distance of only 15 or 20 feet from the nest, the male came to it and presumably fed the female, for she was on the nest; but she did not sing as the male approached, nor have I heard her sing at any time. In the afternoon another photograph was secured of the male on his rock, facing west.

July 8. At noon the male was standing in the nest with his feathers all 'fluffed up,' shading the young from the hot, penetrating rays of the noonday sun. His mate was evidently in the garden, for I heard a warning note from that quarter as I approached. The male, however, did not flinch when I knelt on the ground within three feet of him. As I stood up and walked too close, he ran off the nest to a distance of about a foot, but immediately walked back to it as I withdrew.

This afternoon, having flushed the female from the nest, I sat on the ground some 15 feet away to watch developments. After a time the male came to the nest and fed the young. The nestlings have grown surprisingly.

July 11. I am making my observations at the garden nest without a blind or concealment of any kind. The male is amazingly plucky or else very confiding, but the female is extremely timid. Here is a striking example of

individuality in birds, the relative temperaments of this pair with respect to timidity being just the reverse of those of the pair at the slope nest where the male is timid and the female is the plucky one.

While I remain near the nest the male does all the feeding and sheltering of the young. He now permits me to sit at the camera, which is only three



(THE GARDEN NEST.) MALE LONGSPUR STANDING BEHIND THE NEST AFTER FEEDING THE NESTLINGS. JULY 13.

or four feet from him, as he stands or sits over his brood. I made two photographs of him, one of which shows him shading the young, his feathers fluffed. At this stage of the development of the young (age six days) the parents begin carrying excrement away from the nest, after one feeding the male being observed to fly away with it, but at the next trip he swallowed it as formerly.

July 12. It is very hot in the sun. The male at the garden nest is tamer than ever. He came to the young and fed them while in the shadow of a small pack-sack which I had placed at the edge of the nest to shade them. Later he came while I was between the nest and the camera, and would have fed the nestlings immediately had I not shooed him away long enough to draw

the slide of the plate-holder, set the shutter and get back to my post at the bulb, in preparation for an exposure. He shelters the young persistently. One plate was exposed on the male feeding his youngsters, his bill in a nestling's mouth, and soon after dinner the two parents were photographed together, the female on the nest brooding, and the male dividing grasshoppers with her. He had at least two grasshoppers in his bill and gave her one of them, which she either fed to the young or swallowed for her own dinner; I could not be certain. The female then left the nest and the male immediately fed the remaining grasshopper to the young.

A popular 'movie' situation is now developing—another male is paying court to the married heroine. This morning, while she stood in the garden with a grasshopper in her bill, an audacious stranger ran past her, making his bow with the wing nearer her. He quickly made another advance with the evident intention of bowing to her again, but she ran at him and drove him away. Her mate was on the nest, panting and sweltering in the hot sun while bravely shading the young. He seemed in a position to observe this attempted flirtation with his spouse, but he paid no attention to it. I afterward saw the stranger again. He is a well-dressed, swaggering fellow, and this time came marching into view ostensibly oblivious of the presence of the female which stood upon the rock at the edge of the garden. He made no advances toward her, and it was plain that he merely happened to be in the vicinity. Having come out for a walk he chanced to stroll where she could see his carriage and general air of superiority—if she cared to look. But she flew at him this time also, and he went away.

July 13. I watched at the nest for some time today, and, just after noon, succeeded in photographing the male standing behind the nest with the head of one youngster stretched up toward him. He had just fed the nestlings.

The practice of swallowing excrement has been entirely discontinued. It is being carried away and is usually dropped while the bird is on the wing.

Although the food of the young is nearly always grasshoppers, I saw a moth and larval worm being fed to them today. A parent sometimes carried two grasshoppers, and perhaps other things, in its bill at one time.

Ever since the camera was placed on the low tripod-stand at the nest, the female has kept at a distance and the male has had to do all the work. He works earnestly and continuously. For a time the female stood in the garden plot with a grasshopper in her mouth, listlessly looking on. She worked her way by inches toward the nest and finally reached the rock which stands about two feet from it. She waited awhile on the ground, then got up her courage and mounted the rock where she stood stupidly. She was there when the male returned and he had fed several times while she was in the garden. He was no doubt disgusted, for he flew to the rock in a manner which made her fly hastily away, carrying the grasshopper with her. The male fed quickly and hurried away for more food, after which the female walked back from



(THE GARDEN NEST.) MALE McCOWN'S LONGSPUR SINGING VERY SOFTLY TO HIS MATE
WHILE SHE SITS ON THE NEST NEARBY. JULY 1.



(THE GARDEN NEST) NEST AND FOUR EGGS OF McCOWN'S LONGSPUR. JULY 3.

the garden, slipping slowly through the grass and again mounted the rock. She was standing there when the male came again, and he flew straight to the rock. The female dodged and squatted close but did not leave. With scarcely a pause on the rock, the male jumped down to the nest, fed the young and was off again. The female remained there with her grasshopper; she did not go down to the nest. On his next trip the male flew at her menacingly and drove her away, she flying back to the garden. He fed the young promptly and departed as before. Upon his return the fourth time his mate was on the rock again, and this time he alighted on the rock beside her, went to the nest immediately and fed, and the female instead of flying away followed him to the nest and gave to the young the grasshopper she had so long been carrying. I removed the camera and left them.

We succeeded in killing the skunk this evening, so the young of the garden nest may probably be saved from the fate of their neighbors on the slope. The nestlings are now fully feathered.

July 15. It rained all day yesterday and through part of the night. The

young were in the garden nest this morning but all had left it before three o'clock in the afternoon, at which time I located one of them six feet away. When I caught this youngster to examine it the male flew at my head singing excitedly the trio of notes that are so characteristic of the species. The young bird can scramble over the ground at a lively rate, fluttering its wings as it runs, although it is not very large.

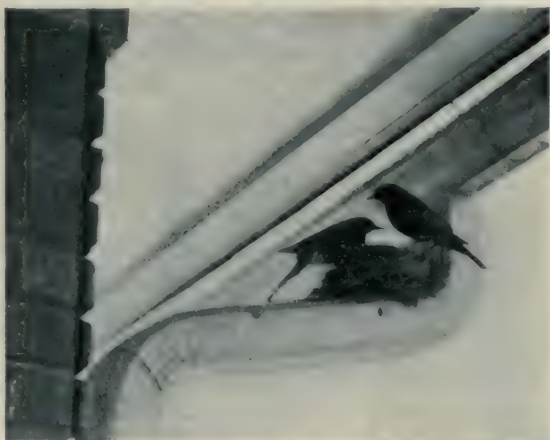
The nest cavity is much larger now than when the eggs were hatched, the enlargement having been brought about by the squirming of the four growing nestlings which completely filled it.

July 17. The young Longspurs are now able to fly for short distances. I saw the male feeding one of them today.

The Nest on the Rain-Pipe

By PAUL C. SAMSON, Maumee, Ohio

APRIL 6, 1921, dawned with a stiff spring breeze and a clear sky. While eating breakfast, my father called my attention to the peculiar actions of a pair of Robins. They were flitting around the back porch, now alighting on our clothes line, now flying away to a nearby poplar tree and back again, perching this time on the nearly horizontal section of rain-pipe, which slanted slightly, back and down, connecting the eaves-trough with the vertical ground pipe. Soon they flew off again and remained away. Had they been displeased with what



EACH OF THE PARENTS HAD A SPECIAL SIDE OF THE NEST ON WHICH IT INVARIABLY ALIGHTED

Photographed by Paul C. Samson

we had for rent? For the moment it seemed so, but at length they returned, the female, identified by her generally duller body and beak, coming first, bearing a small quantity of long, coarse grass and a bit of heavy twine which she arranged on the pipe in a rough circle. The male soon put in his appearance with a beakful of similar materials. Then away flew the industrious pair, and another one of the wonders of nature, a nest, had been begun.

It looked as though the fates were against the feathered workers, for but two or three trips had been made when a gust of wind carried away all the

fruits of their labor. Nothing daunted by the mishap, however, they went at the task with renewed vigor.

Before leaving for school I placed several bits of string near-by, but I was somewhat afraid that my new tenants would become discouraged in attempting to build on such a windy corner. Returning home that evening I was glad to learn that I had been mistaken for the work was progressing nicely. By the afternoon of the second day, April 7, the nest had taken a definite shape and the sides were rising.

During the next morning the bottom was filled in and the whole nest chinked with mud and clay. Late that afternoon the raw materials utilized were of a much finer texture, pieces of lint and soft cotton string appearing, and at length fine blue grass predominating. This was the final touch to make the nest as comfortable as possible, to keep out the cold, and to keep in the life-giving body-heat of the mother bird.

Both Robins took part in the home-building, and the process was a very interesting one. One of the pair would arrive and deposit a billful of grass or twine within the nest; a hop, and the bird would be in the nest, ruffling itself up and snuggling down, until the few bits of debris would work into the side walls or bottom. Any loose ends would be tucked and woven, with the bill, along the top, forming a fairly strong edge, this to be later reenforced with some of nature's concrete.

However, toward the end of the nest-building period, the male Robin began to do porter service almost entirely, while Madame Robin stayed at her future residence, arranging and rearranging, pushing and pulling until the interior design was suitable. Hers was the right, I am sure, for it was she who would be forced to stay in the nest almost constantly during the two tedious weeks and over which her eggs would require for incubation.

The afternoon of April 8 found the nest completed. Both birds left, being gone until the following morning, thus giving the nest a chance to become dried out and hardened.

Saturday morning, April 9, saw the first egg laid, and during the forenoon of the next day another appeared. This was to be the extent of our Robin family.

Followed then two weeks and a day, the hatching period, during which there were only one or two incidents worth recording, to break the uninteresting monotony of the mother's ceaseless vigil over her potential family.

Father Robin was not so much in evidence now. On warm days the mother would desert her nest for a little while to go in search of a few billfulls of juicy angle-worm or a luscious cricket or moth, returning soon, however, to resume her home duties. On cooler days the gentleman of the family would more or less tenderly feed the lady, gently ramming a few tid-bits of robin fare down the throat of his mate as she sat on her nest.

Saturday, April 16, dawned with a cold rain, which rapidly turned into a

freezing sleet. It looked as though the little feathered mother would be tied fast to her nest for the next twenty-four hours, and, indeed, she rumbled up her feathers as though it were to be an all-day job. A chill at this point would be fatal, and the tiny germ gradually growing and expanding into a baby Robin would be irreparably damaged. Would the male again feed his mate? Evidently not, for he seemed to be having a hard enough time to find subsistence for himself. He flew to the edge of the nest, with a woebegone air, cold water dripping from his feathers, and the next few minutes he spent shaking and preening himself. Suddenly, as if at a preconcerted signal, the female slipped off the nest, and in a flash her mate settled down on the eggs, keeping them protected without an instant's exposure. This proved conclusively that the male of the species can assume maternal duties, should the necessity for such an action arise, contrary to the opinion of many males. A repetition of this occurred when the female returned, with, we hope, a satisfying breakfast.

On April 24 the two eggs hatched, and then, indeed, did a busy time start for the parent birds. The tiny fledglings developed ravenous appetites within an amazingly short time and the two adults were soon rushing every minute for food, with dinner time always at hand.

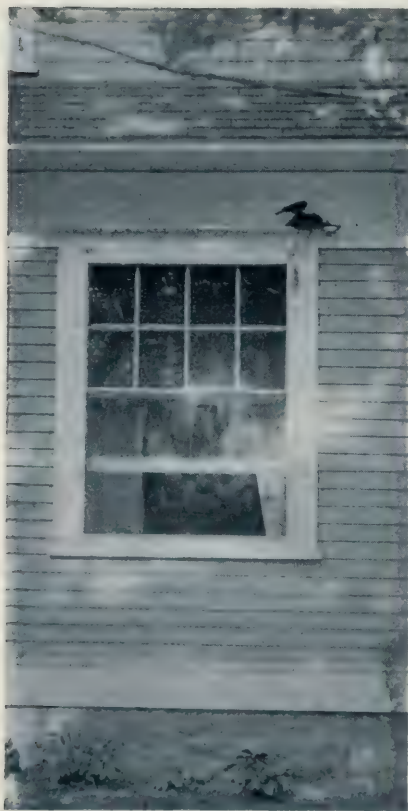
Within two days the down on the backs and heads of the fledglings had given place to pin-feathers, and exactly a week from the time that they were hatched, the eyes of the nestlings opened and soon the wind- and tail-feathers were taking shape and color.

An interesting thing to note is that each of the parent birds had a special side of the nest on which it invariably alighted: the male on the right side, and the female on the front left. Never at any time I was observing them did they perch elsewhere when alighting at the rest.

Monday, May 9, marked a new era in the life of the immature birds. Upon this day, four weeks and five days from the time that the Robins had first visited our porch, and four weeks and one day from the time that the eggs had been laid, the youngsters, for the last day or two restless and uneasy, awkwardly scrambled up the sides of the nest, until that time the outermost confines of their little world. They clung dizzily to the edge for an instant, furiously flapping their ridiculous wings and craning their tiny necks. Then with a baby chirp, a quirt of their tails, and a dainty hop, they left home for good, amid the noisy demonstration and approbation of their parents and of several Grackles and English Sparrows that happened on the scene. A little later in the day, I found one of the babies in the garden, and it shyly consented to pose for me.

Some Robins and Their Nests

By EDWARD R. WARREN, Colorado Springs, Colo.



THE SECOND NEST—OVER THE LIVING-ROOM WINDOW

Though facing due west, this location was well protected from the afternoon sun by a large tree which shaded it at that time. Photographed July 8, 1922.

like the window above. The birds worked on the pantry window nest most of April 29, and it was completed a day or two later. The birds were sitting regularly May 8 or 9, and four young were hatched some time between May 18 and 22, the eggs being unhatched on the former date. The young left the nest June 5.

This location was a very public one. As may be seen from the picture, a door opened from the dining-room almost directly under the nest, and the porch was much frequented. My little girl spent much of her time playing about this spot and often adults were about as well.

On June 11 I discovered that Robins had begun another nest on the previously mentioned living-room window, at about the same point at which

IN the spring of 1922, a pair of Robins built two nests on caps or ledges over windows in my home in Colorado Springs and successfully raised two broods of young. The first nest was constructed after much hesitation and beginnings on three different sites. On April 25 the birds began carrying nesting materials, such as twigs, strings, and dry grass, and placing it on the ledge above a second-story window beside our sleeping porch on the south side of the house. The following day was rainy and the place got very wet and most of the stuff either fell off or was carried away. That day I noticed that material had also been placed on a similar ledge above the west window of our living-room, on the first story, which was much better protected by overhanging eaves. This, however, was almost all torn down on April 27, and a new foundation was started over the bedroom window.

No work appeared to have been done there on April 28, but another nest was started above a pantry window on the first floor, facing south,

they had attempted to build the first time. They carried a lot of twigs and dry grass there, which, however, had all blown off early in the afternoon. The next day the same thing occurred, material placed in the morning blowing off in the afternoon. This sort of thing went on for a few days, the birds placing some material on the ledge in the morning, only to have it blown off before night, a breeze usually coming up in the afternoon, and the birds working only in the earlier part of the day. On June 16 they evidently decided it was time to work in earnest, and they kept at it steadily during the day and by late afternoon had the nest well built up into cup shape. We left town the following morning, and I did not see the nest again until July 7. That day the Robins were feeding young which could hardly have been more than a day or so old. I left town again a few days later, but on my return in September was informed that the young were successfully reared.

While, of course, I do not know that the same pair of Robins built these two nests, I think that the fact that the second nest was constructed where an attempt had previously been made justifies me in the belief that they were the same birds. The accompanying photographs show the situations of the two nests.

Two other Robins' nests near my home the same season apparently came to grief for unknown reasons.

On April 23, I discovered a Robin on her nest, about eight feet above ground, in the fork of a maple tree standing in the angle between the sidewalk and a walk leading from a house to the curb. This was a much frequented place, for automobiles often stood at the curb a few feet away and people were passing back and forth. On May 9 I saw the female feeding young in this nest, but after a week or ten days I saw no more of this and could not discover what had happened. The nest appeared to be undisturbed.

Another pair of Robins built a nest, beginning April 30, in the forks of a locust tree in my back yard, 20 to 25 feet above the ground. This nest was



THE NEST ABOVE THE PANTRY WINDOW

The first attempt at building was on the cap over the second-story window near the upper left-hand corner of the picture. Photographed May 16, 1922

noticeable because it had a string with a shipping tag attached to it dangling several inches below. My notes of May 9 state that the bird had been sitting regularly for several days. May 13 I remark, that I had not seen the birds for two days. English Sparrows may have pestered the Robins into deserting the nest as there are a number about the premises.

On a branch of a box elder tree in the adjoining yard, and about on a level with our bathroom window, was a last year's Robin's nest. One day we saw a female Robin examining this nest, and the following day I saw one in the nest, sitting as if she belonged there and apparently very much at home. There were one or two fresh strings hanging about the nest, and on the end of one was a wooden bead belonging to my little daughter; evidently bead and string had been dropped in the yard and picked up by the bird and carried to the nest. This was on May 13. I wondered at the time if by any chance this might have been the owner of the locust tree nest, who, driven from her home, and still feeling the impulse to incubate, had discovered this old nest and tried to satisfy this impulse by sitting in it.

Love of Home Is Characteristic of Robins

By EDWARD HOLT EVES, Athens, Ohio



THE NEST-SITE ON THE DISHPAN FROM WHICH IT WAS MOVED

LOVE of home is characteristic of American Robins. When they begin work on a nest they usually complete it and rear their brood in it, regardless of interruptions. An instance observed at Athens, Ohio, shows that their nest may be moved from one place to another without causing them to desert it.

Choosing as their building site a dishpan that was hanging against an outside wall and beside a kitchen door, these Robins began building their nest March 28, while a snow-storm was raging. Late that afternoon when the owner of the dishpan saw what the Robins were doing, the nest seemed to be about one-third

completed, as is shown in the accompanying picture of the nest resting on the dishpan hanging against a wall.

Because the owner of the dishpan was about to oust the Robins in order to have the pan for her own use, a university student who is interested in bird-life came to the aid of the Robins. After setting aside the dishpan, he fastened a small shelf to the wall where the dish-pan had hung. Then he



THE NEST ON THE SHELF TO WHICH IT
WAS MOVED

transferred the nest from the pan to the shelf, as is shown in the other picture. While the transfer was being made, the female Robin came with more building material. When she saw what was being done to her nest she uttered a queer cry, dropped her straw and flew to a near-by tree, from which she observed suspiciously everything that he did.

As soon as he went away she came to her nest and looked it over carefully. Finding it was unharmed, she went in search of her mate, who returned with her in a few minutes and both examined the nest and its new foundation. Then they resumed work on it, working intermittently, and completed it March 31.

One egg was laid April 1, a second on April 2, and a third on April 4. The young Robins were hatched April 18. One of them seemed to be smaller than the others, and disappeared from the nest early the next day. The other two left the nest May 2 when the student began to arrange a camera in order to make a close-up picture of them. After leaving the nest, the young Robins, convoyed by their parents, remained in that neighborhood for several days while learning to fly.

Dicky, an Orphan Robin

By JESSIE FERGUSON, Troy, Ohio

WHENEVER I am told that anyone has a bird-like appetite, my heart goes out in sympathy to both provider and cook, and the impression I receive is very different from that intended; for I have raised a bird from the very youthful stage when tail feathers are merely embryonic pinfeathers, to a full-fledged adult, perfect in every respect. So I know. The experience is one I am glad to have had and the memories are now all pleasant and amusing, but I would indeed hesitate to assume the responsibility again.

One hot summer day a naked baby Robin lay all day long in the grass close to the iron fence enclosing our parsonage yard, for some reason deserted



DICKY AT MEALTIME

by its mother. Whether it fell from the nest or whether its mother was killed we never knew, but it was deserted as absolutely as any baby left in a basket on a doorstep. When evening came, we took it in to protect it from the cats, expecting the mother to claim it the next day, but the bird was ours.

Dicky, as we called him—and he soon learned his name—had some very admirable qualities, one of which was that he ate what was set before him and asked no questions. I should say that he ate what was put down his throat, for he was almost a full-grown bird before he deigned to pick up anything for himself or even to pay any attention should his food fall out of his mouth onto the floor at his very feet.

The summer was hot and dry; consequently fishing worms were scarce and small, but the entire family felt obligated to feed that bird, so every favorable place was carefully dug up and examined. The demand was so much greater than the supply that it was really pitiful. One day after long and arduous

labor, I brought in his pan (which by the way he soon learned to recognize) with a rather good supply of small worms. Dicky was immediately on the job and while I watched him he ate forty. After this he jumped up on his perch a moment, then was back ready for more; but I considered that his hunger should be satisfied for a while at least, so took the pan away from him. When fishing worms were not obtainable, he ate other things. But even flies seemed scarce that summer, and many a day we fared forth with our swatters to swat the flies in the outside cellarway of the church next door. When worms and flies failed, and also to prolong the supply of these delectables, Dicky ate cherries, berries, cabbage-worms, noodles, rice, potatoes, anything and everything.

During his boyhood and young manhood he was absolutely without fear. His perch was in a corner of the enclosed back porch and it was necessary to keep the kitchen door closed to keep him from being burned on the stove. It was a marvel to us that that bird escaped being cut in two by the door; for he would watch his chance and after our last backward glance to see that he was safe on his perch, he would dart in just in time to miss being caught. If his landing place was a kettle on the stove or my father's bald head, it was perfectly satisfactory to him. This same bald head was rather a favorite spot with him and he seemed to enjoy skidding around on it and clutching at its smooth surface. He always spent the afternoons in the front yard with the rest of the family and he was a lonesomé bird when he had to be shut up alone for the afternoon.

Our ward probably learned to fly more slowly than if he had had more experienced teachers, but at last that feat was accomplished. One day, while he still considered the whole world as friendly, he flew to the top of a neighboring roof. We called and coaxed, but to no avail, and, knowing that he would not live an hour if released, we thought his beloved food-pan might coax him down. It did, for when we got it and held it high so he might see, in a moment he was down, ready for any good morsel it might have for him.

He was an extremely cleanly bird and often bathed two or three times a day. After bathing he stretched himself out flat on the grass to dry, while one of his vassals stood guard against cats. A cat meant nothing to him and I have seen him sit back and hiss at a hen without a particle of fear.

Gradually he learned to fly up into the trees and some days he would be out all day, then at evening fly down to the door-step to be let in for the night. One evening he did not come back and we supposed he had left us, but in a few days we heard him at the door again and let him in. He visited with us for an hour or more and seemed as contented as ever, only he preferred to make all the advances himself. He hopped on our fingers and permitted us to hold him so long as we did not attempt to stroke him; but at the first advance on our part, he would fly off. We were very happy to see this as it showed us he had learned fear. Though we often heard him and called to

him and he would answer us, he never came to us again and, of course, we do not know what finally became of him. I would have been glad to be there the next spring when the birds came back, for I am sure I would have recognized his call which seemed different to us. But we left in the fall, so we do not even know if he came back to take up life where he had begun it under such disadvantages the year before.

He was a great Dicky and we became as attached to him as many people do to their dogs, and it was a pleasure to have had the experience; but before undertaking such a responsibility again, I think I would consult all the calendars, almanacs and moons accessible to find out whether the season would be wet or dry and the fishing worms correspondingly plentiful or scarce.

The Story of an Albino Robin

By F. MAY TUTTLE, Osage, Iowa



AN ALBINISTIC ROBIN
Photographed by Ina Conner

SHE was the oddest little freak of a Robin, we thought, that first day, when we spied her in the bird pool: perfect in shape, a bit timid in poise, but such a mottled coat! Across her red breast was a broad band of white, so, of course, we knew she was one of several partial albinos that had been here the past two years. Her dark head was streaked and spotted with white, and one large white spot over her right eye made her look as cocky as an English bulldog.

None of the other Robins seemed to care for her; in fact every time she came to the bird pool she seemed frightened. Small wonder, when they in-

variably opened their beaks at her, and probably would have stuck out their tongues if they had been human. She would even hop sidewise if an English Sparrow came near; and that, for a Robin, is unusual, for they are decidedly aggressive when it comes to taking advantage of the conveniences put out for their use.

So the summer of 1921 ran its course. Whether she was born in that year or not, we do not know, for she was fully matured when we first saw her.

But the big surprise she gave us was on Sunday, April 16, 1922. We were about ready to sit down to dinner and had been discussing an albino Robin mother that had been at the Gardner Nursery Company's grounds for three successive years, when I laughingly remarked, "I wonder if our albino will

come back this year." On glancing out of the dining-room windows which overlook the two cement bird pools, I caught my breath—for there she stood, just ready to enter the larger pool! The family came trooping to the window, gladder than we could express, that our little friend of last summer had found her way back after six months' absence.

This spring she mated with a perfect specimen of robinhood, no doubt cutting out a lot of other young lady Robins by the sweet way in which she bore her ludicrous markings.

The rest of this story must be credited to Mr. and Mrs. James Connor and their daughter Miss Ina, for it was in their yard that this albino Robin raised her first brood. They fed her many times a day, until she would come to their window-sill and call for food. If they went into the yard and she was at some distance, she came at their call to get the proffered crumbs. Her picture was taken by Miss Connor, who stood within three feet of the Robin when she clicked the shutter.

Only two of her eggs hatched. From one of these came a normal Robin, while from the other came a bird marked much like its mother: the breast is nearly all red with a showing of a white band across it, while the head is speckled white and dark brown.

When these babies were well out of the way, so that Father Robin could help them find food, our albino Mother Robin made preparations for her second brood. But fate or some Screech Owls decreed otherwise, for one evening the Robins and the Screech Owls had a battle, and the outcome was tragic. A Screech Owl flew away with what looked like a baby bird in its claws, and Mother Albino has never been seen since.



CARDINAL FRIENDSHIPS

[The two following articles concerning the attachment formed by captive Cardinals for their owners contain so much evidence that birds may develop a love for us comparable with that we have for them, that no one, we are sure, can read of these Cardinals without being impressed by the closeness of our kinship with their kind.—ED.]

The Story of Bob, the Cardinal

By NELLIE B. HAMMOND, Los Angeles, Calif.

DURING an unusually cold winter in West Virginia, about 1884, I think it was, a negro boy brought to my father a beautiful male Cardinal which he had trapped. My father bought the bird and put him in a large brooder cage which he hung in the porch. The bird was very wild and nervous, beating the bars with his wings whenever anyone approached the cage, and many times I wished for the courage to open the door and free the beautiful, unhappy creature.

About this time someone gave me a young Canary, and his cage was hung near that of the Cardinal. In spite of his captivity, the red bird continued to sing whenever he believed himself alone. As the Canary grew older we were surprised and delighted to note that he imitated the Cardinal's song. It was delightful to hear them sing together—the strong, clear notes of the Cardinal and the soft echo of the Canary.

In the fall of 1890 my father died, the home was broken up and my brother carried Bob, as we called the Cardinal to his home in Cleveland, Ohio. The bird must have been more than six years old at this time. On reaching his new home my sister-in-law hung his cage in a sunny kitchen window near her worktable, and as she came and went about her tasks she talked and whistled softly to him. Little by little he seemed to look for her. Gradually the bird who had shown so great fear of all other human beings began to evince a new interest in life. All the terror and misery of his long captivity seemed forgotten; he had found his mate and he loved her with sincerest devotion; he sang for her, and her alone. Whenever he called for her it was irresistible, compelling. One day when she was very busy she said, "Bob, I can not come now, you must wait;" but Bob couldn't wait, so wiping the dough from her hands she went to his cage and putting her face close to the bars, took between her lips the dainty morsel, he had saved for her then placing it between her teeth, she offered and he took it and ate with satisfaction; this he did frequently.

Whenever he heard her step he greeted her with joyous song. He would squeeze down in the corner of his cage nearest her, and with quivering wings and head thrown back and from side he sang his song of love. Through his confidence in her, he lost the terror of human beings that had so long obsessed him. To my brother he so far unbent as to allow him to scratch his head.

My sister went to New York for a visit leaving Bob with a neighbor next

door. She was gone six weeks, and in all that time the bird never sang a note. When she returned, early one morning, she went round to the side door. He must have recognized her footstep, for she was alone, and he immediately burst into a loud and rapturous song of welcome. Later she went to California and was away ten months. Again no song! Poor Bob, it's a wonder he did not die of grief during her absence, or of ecstasy on her return. Even when she happened to be out late at night, his joyous welcome greeted her the moment she entered the dark hall.

A friend who lived with them for a year made him very angry by running her finger along the bar of his cage. He would scold and make a great show of fight. Often she was absent for a month at a time, but when she returned he greeted her with the old challenge; strutting about as though daring her to come near his cage. I think he really enjoyed it.

In his Cleveland home he found another Canary whose musical education he undertook and carried on with great success; indeed it was often difficult to tell which bird was singing.

Sometimes his mistress let him out in the sewing-room, when using the machine, which was always a source of great interest to him. He would hop about, cock his head on one side, and look up in her face with an air of puzzled curiosity. Then he would perch upon her head and sing with all his might, evidently trying to drown the noise of the sewing machine.

This is the true story of Bob, the Cardinal, who lived with us for twenty years.

The Story of Dicky and Ruby

By GRANT FOREMAN, Muskogee, Okla.

SOMETIME ago I read an interesting article in *Harper's Magazine* about the disposition of birds to care for others than their own young. Last year we were very much entertained by the lively interest of a female Painted Bunting in a young Cardinal; for several hours one day she pursued the youngster with things to eat, and as he was twice as large as she it was amusing to see her reach up, as they sometimes stood on the same level. She seemed to have a morsel for him every two or three minutes but so far as I could see he never refused the food, though he was not in need of her assistance, for his parents were around and he was big enough to look out for himself.

A pair of Cardinals have been with us for several years, for we always have food and water for the birds. There is a particular feeding-box near the house and it is sometimes very touching to observe the tender solicitude of the male Cardinal for his wife. They usually feed together and I have seen him sitting on the edge of the feed-box with her on a twig just below him; then he would pick up a morsel and reaching down to her would deposit it in her mouth as a mother bird feeds her young.

The most remarkable instance of this disposition on the part of birds

that I ever heard of, I witnessed for several years in my boyhood. My oldest sister had a male Cardinal in a cage which she raised from the nest and which lived in our home for over twenty years until he died of old age. His attachment for my sister was touching, though he was indifferent to the rest of the family. When she returned to the house after a few hours' absence he would become excited and act like one transported. He would come to the front of the cage and begin singing to her, with his crest erect, bowing from side to side, singing on and on without ever a pause for two or three minutes at a stretch, until one thought he would drop with exhaustion.

And when he was eating and found a morsel that he wanted her to have, he would set up a great chatter and calling until she would come to the cage and put up her lips, when he would deposit the morsel between them and return to his eating. This was a matter of almost daily occurrence. One day he found a big fat angle worm that had been put in his cage which he felt sure she would like, but to his disappointment she refused. In his later years he became too old to sing much but when almost blind he retained the remarkable affection for his mistress and you may be sure it was a sad day when he passed away.

[In response to an inquiry for further information concerning this Cardinal, Mr. Foreman sends the following letter from his sister.—ED.]

"You probably remember that I had two Cardinals, the first Dicky, the second Ruby. Dicky I kept for about nine years, while I was going to school. He was even more devoted to me than Ruby was, and on the one and only occasion when he got out of his cage, and flew in a window of the Israel's home, he proved my ownership to Mrs. Israel, beyond a doubt, by the delight he showed when I went to see if he were not my lost bird. He got right down on the floor of the cage as near to me as he could get, and sang and bowed until we began to wonder how and when he managed to get in a breath. There was no need for argument; Dicky proved his own case, and I took him home. I used to give him grasshoppers, and he would carefully dissect them, laying the legs and hard parts to one side, and then taking the soft parts in his mouth he would pace back and forth in the cage calling for me to come and get some nice juicy grasshopper steak. Whenever he wanted to feed me something that I could take, I always let him feed me, so he would not get discouraged; but he thought the very choicest bite that he could offer me was a nice fat grasshopper.

"Ruby was also very affectionate, but, if anything, he loved my husband, Henry, better than he did me. No matter at what time of the night (it might be two or three o'clock in the morning) he might come in, Ruby would sing and bow to him, in the greatest delight. And when Henry came home, after having been in New York for six months, Ruby knew him immediately and got down on the floor of the cage just as close to him as he could get, and sang of the love of his heart and how glad he was that Henry was back home again. Ruby was twenty-three years old when he died."

The Migration of North American Birds

SECOND SERIES

XXI. ORCHARD ORIOLE

Compiled by Harry C. Oberholser, Chiefly from Data in the Biological Survey

The Orchard Oriole (*Icterus spurius*) ranges from southeastern Canada through the eastern United States and Mexico to Central America and northern South America. It breeds north to southern New Hampshire, southern Vermont, central New York, southern Ontario, north central Michigan, northern Minnesota, and northeastern North Dakota; west to western North Dakota, western South Dakota, eastern Colorado, western Oklahoma, western Texas, northwestern Durango, and Jalisco, Mexico; south to Oaxaca and Chiapas; and east to Vera Cruz, Tamaulipas, southeastern Texas, the Bermuda Islands, and the Atlantic Coast of the United States from northeastern Florida to eastern Massachusetts. It winters from southern Mexico through Central America to northern Colombia. It is of casual occurrence north to Nova Scotia, New Brunswick, Maine, and northern Vermont, and west to eastern Wyoming, central Colorado, and central southern New Mexico. It occurs occasionally during migration also in southern Florida and Cuba.

SPRING MIGRATION

LOCALITY	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Pensacola, Fla.....	4	March 31	March 23, 1885
Tallahassee, Fla.....	7	April 8	March 23, 1902
Savannah, Ga.....	17	April 13	April 7, 1913
Kirkwood, Ga.....	15	April 22	April 12, 1904
Charleston, S. C.....	6	April 13	April 6, 1908
Anderson, S. C.....	4	April 22	April 11, 1915
Raleigh, N. C.....	26	April 24	April 16, 1888
Newmarket, Va.....	28	May 1	April 26, 1914
White Sulphur Springs, W. Va.....	6	April 29	April 26, 1897
Washington, D. C.....	33	May 3	April 25, 1908
Cambridge, Md.....	6	April 27	April 24, 1910
Berwyn, Pa.....	20	May 6	April 30, 1908
Beaver, Pa.....	13	May 1	April 22, 1891
Morristown, N. J.....	15	May 7	April 29, 1908
New York, N. Y.....	18	May 6	April 30, 1889
Shelter Island, N. Y.....	7	May 14	May 4, 1887
Buffalo, N. Y.....	5	May 16	May 15, 1916
Oswego, N. Y.....	11	May 14	May 4, 1905
Jewett City, Conn.....	21	May 10	April 29, 1906
Boston, Mass.....	4	May 22	May 17, 1902
New Orleans, La.....	20	March 27	March 22, 1903
Biloxi, Miss.....	9	April 3	March 28, 1914
Helena, Ark.....	24	April 13	March 30, 1897
Athens, Tenn.....	7	April 16	April 8, 1904
Eubank, Ky.....	12	April 22	April 18, 1893
St. Louis, Mo.....	11	April 22	April 15, 1888
Kansas City, Mo.....	6	April 27	April 20, 1882

SPRING MIGRATION, continued

LOCALITY	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Odin, Ill.	10	April 24	April 18, 1889
Chicago, Ill.	12	May 3	April 29, 1906
Bloomington, Ind.	11	April 24	April 17, 1893
Richmond, Ind.	13	April 27	April 17, 1914
Waterloo, Ind.	15	April 30	April 23, 1896
Oberlin, Ohio.	20	May 4	April 27, 1915
Wauseon, Ohio.	15	April 30	April 24, 1896
Battle Creek, Mich.	14	May 4	April 20, 1914
Ann Arbor, Mich.	22	May 6	April 23, 1895
London, Ont.	5	May 10	May 3, 1902
Keokuk, Iowa.	17	April 30	April 25, 1902
Sioux City, Iowa.	13	May 9	May 1, 1887
Madison, Wis.	11	May 15	May 7, 1899
Lanesboro, Minn.	10	May 17	May 10, 1891
Minneapolis, Minn.	10	May 18	May 9, 1889
San Antonio, Tex.	13	April 8	April 4, 1890
Kerrville, Tex.	16	April 16	April 13, 1908
Bonham, Tex.	6	April 13	April 8, 1889
Wichita, Kans.	6	April 30	April 27, 1915
Onaga, Kans.	27	May 2	April 27, 1914
Vermilion, S. D.	4	May 9	May 4, 1912

FALL MIGRATION

LOCALITY	Number of years' record	Average date of departure	Latest date of departure
Morristown, N. J.	4	August 17	August 31, 1907
Berwyn, Pa.	14	August 31	September 21, 1891
Washington, D. C.	5	August 27	September 14, 1919
Raleigh, N. C.	5	August 9	August 22, 1893
Savannah, Ga.	2	August 30	September 5, 1910
Detroit, Mich.	4	August 6	September 9, 1907
Wauseon, Ohio.	9	September 7	September 15, 1894
Richmond, Ind.			September 20, 1914
Odin, Ill.	4	August 15	August 21, 1890
Concordia, Mo.	8	August 23	September 1, 1917
Athens, Tenn.	6	August 24	September 22, 1909
Biloxi, Miss.	3	August 24	September 10, 1905
New Orleans, La.	6	September 18	September 26, 1914
Lanesboro, Minn.	3	August 1	August 26, 1888
Keokuk, Iowa.	4	August 16	August 27, 1899
Onaga, Kans.	24	August 18	September 8, 1910
Bonham, Tex.	3	September 10	September 15, 1885

Notes from Field and Study

The Speed of Flight in Birds

The measurements of the speed of birds in flight may be approximated by the use of the automobile. It is an interesting diversion, where possible, but must be done with caution during driving. During the past summer I had occasion to drive a car many miles over the prairie in Ford County, in southwestern Kansas. Using a car equipped with a speedometer attached to the driving shaft, which tested quite accurately, I was able to make from one to numerous observations on the flight of certain birds common in that district. The tests were made by observing birds flying over or near, and parallel to the road, and by regulating the speed of the car to correspond to the birds' flight. Only occasionally in 3,000 miles of driving would the conditions be favorable for measuring the flight of birds.

It was observed that the birds of a species varied little in their flight, except among Hawks. Also, one Nighthawk was found to be flying at 17 miles per hour and one Prairie Horned Lark at 23 miles per hour. One observation of a domestic Pigeon showed a speed of approximately 30 miles per hour. Numerous observations of jack-rabbits showed their speed to be from 20 to 25 miles per hour, usually about 20. The speeds here given are most accurate for the Mourning Dove, Meadowlark and Flycatcher, since with them numerous observations were made. Most birds when startled by the automobile would fly at an angle to the road, making speed tests impossible. The observed speeds of flight in miles per hour follow: Mourning Dove 32; Meadowlark 20; Arkansas Flycatcher 17; Swainson's Hawk 15; Prairie Horned Lark 15; Baltimore Oriole 12; Scissor-tailed Flycatcher 10.—HAROLD B. WOOD, M.D., *Bloomington, Ill.*

Notes from Sault Ste. Marie, Mich.

More than a year ago I sent in an item for Field and Study Notes, November 21, 1921, about a male Red-winged Blackbird

that had come in to my feeding station and acted as though he intended to stay all winter. He did, and was around every day until April 23, 1922.

Much to my surprise, while at breakfast November 24, 1922, a male Red-wing flew into one of my feeding boxes and has been around daily since. He seemed to know exactly what he wanted and where to get it. I rather think he is the same bird, particularly as we have no other records of winter Red-wings.

Last year there was practically no food in this locality and the Red-wing was in pretty bad shape when he arrived; took him a week or more to recover. This year food is abundant and he came in in fine condition.

On account of the food shortage last year there were almost no winter birds. This year, with food abundant, the forests to the west of the Soo are alive with birds: flocks of both American and White-winged Crossbills, Pine Siskins, Goldfinches, Pine and Evening Grosbeaks, Red-breasted Nuthatches, Chickadees, and Blue Jays.

Pileated Woodpeckers (*Phloeolomus pileatus abieticola*), and Arctic Three-toed Woodpeckers (*Picoides arcticus*) were much more abundant than usual. On November 5, on a hardwood ridge, largely beech, about 45 miles west of the Soo, a Red-headed Woodpecker was seen; also on the same day a Bronzed Grackle, our first November records for these two birds.

The Great Gray Owl is also rather plentiful this year. Eight have been shot and reported to us since October 22.—M. J. MAGEE, *Sault Ste. Marie, Mich.*

Fall Notes from Bettendorf, Iowa

A gratifying increase of Golden-crowned Kinglets was observed during the migration of the fall of 1922. They were first seen early in October and increased in number till the 18th when more than 100 of this species were seen in a near-by woods. Then the number gradually diminished, but I heard and saw

them almost daily during October. I saw more Golden-crowned Kinglets this past fall than I have seen during the past five years. Ordinarily the Ruby-crowned Kinglet is very much more numerous than the Golden crowned, but last fall they were very much in the minority.

Double-crested Cormorants have stopped off for a long stay on the Mississippi River in this vicinity. I first saw them on October 16, when three large flocks passed over. The first flock numbered about 300, this being soon followed by a flock of about 800. Both of these flocks flew directly over our place, and another flock of about 100 passed by later but these were probably a half mile farther east.

Since then I have seen from 6 to 200 or more on the Mississippi daily. Several weeks ago one of the Davenport newspapers contained an item regarding a large mystery bird of which a half dozen individuals had been observed perched on some rocks in the middle of the river, and ventured an opinion that they belonged to the Crane family. I have never observed this species to stay in this vicinity for so long a period. Possibly it was due to the very mild weather during October.—HUGO H. SCHRODER, *Bettendorf, Iowa.*

Notes from Fort Pierce, Florida

Following are some notes on observations in the vicinity of Fort Pierce, Fla. during 1918 and 1919.

On November 1, 1918 more than ten species of Warblers were observed. Every tree, bush, and weed stalk seemed to be alive with these feathered gems. Black-throated Blue Warblers were the most numerous. A male of this species was found dead in an orange tree where it had become entangled and was hanging by one foot. Redstarts were also very numerous.

While watching the Warblers in a patch of several acres which was densely covered with small trees, vines, bushes, and scrub palmetto, I saw my first Hooded Warbler. A little later a strange warbler attracted my attention and I found it to be Kirtland's Warbler. I was privileged to look at it at

very close range for several minutes while it moved about among scrub palmettos and low bushes. An 8-power field glass was used. After being under observation for several minutes it was lost from view. I spent most of the morning and part of the afternoon looking through this scrub patch and in various orange groves nearby but was not fortunate enough to get another glimpse at this rare Warbler. I shall always remember November 1, 1918 as a red letter Warbler day. The next day almost all of the Warblers had passed on and only two species were seen.

Male Painted Buntings were seen south of Fort Pierce on February 11, and March 2, 1918.

On December 21, 1918, I was watching a number of Scaup Ducks on the Indian River when a Bald Eagle hovered over the flock for a while, then dashed down and picked up one of them.

On January 15, 1919, I saw a Laughing Gull pursuing a Royal Tern which had a small fish in its bill. The Gull was determined to make the Tern give up its lunch, while the Tern seemed just as determined to eat it himself. The Tern frequently made a sudden downward turn, seeking to elude its pursuer and by so doing increased the distance between them, but the Gull soon regained its position. A Herring Gull joined in the chase but did not have speed enough and soon dropped out. The Laughing Gull finally compelled the Tern to drop its lunch and when it struck the water the Gull picked it up and flew away with it.

Four Florida Jays were seen on January 23, 1919 in a scrub patch between the road and railway near St. Lucie. A freight train came from the north scaring the Jays from cover, and one of them flew by so close that I could have touched it as it passed me.

On January 19, 1919, I was observing birds in the same scrubby patch where I saw the Kirtland's Warbler in the preceding November. Hearing a bird on the ground I found it to be an Ovenbird about ten feet from me. I had on a green suit and hat which matched the vegetation all around me so I stood perfectly quiet to see what the bird would do. It kept coming closer to me, passing to my left within four feet and going back of me

without paying any attention to me. As far as the bird was concerned I was only a part of the vegetation.

My tent was pitched just south of Fort Pierce, back about 100 feet from the Indian River. To the south was an orange grove and just beyond the tent to the north were a number of large live oaks. During all the months I stayed there Blue-Gray Gnatcatchers were busy in the live oaks trying to live up to their name. There were a number of days that I did not see the little mites and I missed their company whenever they stayed away. When I imitated their call note (or rather I should say that I tried to imitate it) they would come down to the lower branches of the trees and visit me for a little while. I first heard their song on February 19 and enjoyed listening to it. It could only be heard for a very short distance and did not possess the volume of that of its relative, the Ruby-crowned Kinglet.

Soon after occupying my tent I heard birds on the river at night whose voices I was not familiar with. I made a notation in my note-book that they sounded like the barking of puppies. I did not find out what they were till several months later when I saw a large flock of Black Skimmers at St. Lucie and heard them yapping. On the way back to Fort Pierce I saw them on a sand bar at the mouth of Taylor Creek, where they were often seen during January and February.—HUGO H. SCHRODER, *Bettendorf, Iowa.*

Richardson's Owl at Groton, Mass.

On Thursday, February 8, 1923, as I was tramping through the woods with my friend Edward Fitzhugh, we found an adult Richardson's Owl lying dead in the snow. The body was emaciated and shrunk, showing signs of starvation. The plumage was perfect and the small white dots on the head, which distinguish this species from the Saw-whet, were numerous and clearly defined. Mr. Emerson Tuttle corroborated our identification of the specimen. Our find was an interesting fulfilment of Mr. Forbush's warning published in the January-February number of BIRD-LORE. I am having the Owl

stuffed.—HAMILTON SOUTHWORTH, *Groton School, Groton, Mass.*

Tree Swallows vs. Bluebirds

In the spring of 1919 we saw a pair of Bluebirds about the yard and as my older boy had been given dimensions for a bird house he made one in his manual training class. We put it up one Friday morning and the next Monday the Bluebirds moved in.



TREE SWALLOW AT NEST-BOX
Photographed by R. W. Jacobs

They were about five days building their nest and hatched out four young.

After the young flew, a pair of Tree Swallows took possession of the nest and after adding a few feathers to it laid one egg, which did not hatch. We found them very sociable birds and as we walked in the garden they would perch on the bean-poles not more than three feet away.

The following year we put the house out early and for some time did not know whether it would be occupied by the Bluebirds or the Swallows, but finally the Swallows, assisted by others of their kind, won.—R. W. JACOBS, *Brockton, Mass.*

An Unusual Experience

Sunday afternoon, April 9, 1922, while approaching a large meadow, Joseph Sweeney and I saw several Crows flying up from a field and then alighting again. They were about a quarter of a mile away and we thought little about it until we drew nearer and heard one of the Crows caw several times in an unusual tone. Topping a rise in the meadow we saw the Crows—one flying a short distance and then falling again and the others circling immediately about and uttering loud cries. As the Crow, that kept trying to rise from the ground, raised himself a few feet into the air, we saw what appeared to be something hanging from his feet. We were all attention at once and broke into a run after the Crow which started for a nearby patch of timber with redoubled efforts as he saw our pursuit and his companions scattered in all directions.

The ground was soft and spongy but we gained on the Crow with his burden which we could now make out as a snake. But the Crow reached the woods ahead of us, taking momentary rests on the branches of the trees. We dashed through the trees, into a creek, up the muddy banks, through underbrush and over fallen trees, and down another bank in hot pursuit, but the Crow kept just ahead of us. My wind was giving out and my heart was racing, but I determined not to lose the chase as I now saw that the snake was coiled tightly about the Crow's neck in two folds.

The Crow, however, was by this time becoming exhausted and in spite of quick turnings and dodgings, I seized him by the primaries of his left wing and held him fast. The snake's head was bruised and bloody, probably from the attacks of the other Crows, probably also by the severe bruises and blows he received when the Crow was flying and thrashing through the timber. I think it was doubtful if the snake, which was about



A CROW AND A MILK SNAKE

Photographed by Ralph R. Wilson

20 inches long, could have held out much longer as his strength appeared declining when removed from the Crow's neck and we put him out of his misery. The Crow, apparently, was all right and when my friend flung him forth he uttered a raucous croak and after several falling and jerky movements flew away.—RALPH R. WILSON, *Hicksville, Mo.*

The Cardinal in South Dakota

On November 5, 1922 we received a call from a Cardinal, and on the 7th it returned and camped in our hedge, near two bird-baths, only a few feet from our west porch, took a bath and numerous drinks, and

seemed to like the food it found on the ground under the wild currant hedge. It was a beautiful bird and was seen by many through our window. Mr. W. H. Over, of our State University at Vermilion, writes me that this is "a new record in the range of the Cardinal."—CARRIE MORSE NORTON, *Faulkton, S. D.*

Bohemian Waxwings and Robin in Lewis County, N. Y.

On January 26, 1923, our attention was called to a couple of birds which were said to resemble Cedar Waxwings but were marked differently. They were feeding on mountain ash berries and paid no attention to several people watching them, so we positively identified them as Bohemian Waxwings by their yellow and white wing markings and gray breasts.

A winter Robin has been seen around the village since January 6, feeding on mountain ash berries and frozen apples left clinging to the trees. We have 2 feet of snow and have had 30 degrees below zero weather.—MRS. FRANK G. BATES, *Glenfield, N. Y.*

Mockingbird in Rhode Island

There was considerable excitement among the bird-lovers of Providence in the early part of last summer, when on June 12, a member of the 'Tech' Bird Club reported that a Mocking-bird was in our midst.

The place where the bird had been seen was about at the foot of the street on which I live, near a little patch of swampy woods, which border on the head of Narragansett Bay. I went post-haste with the discoverer to the big oak tree where the bird had last been seen, not with much hope of seeing him, however. For if the bird really was a Mockingbird, which I very much doubted, it might be miles away by the time I reached the spot. But, as we neared the place, I heard a strange bird-song, entirely unknown to me.

"Hear that! That's he!" exclaimed my guide triumphantly. Although I had never heard a Mockingbird before, the minute that the rollicking series of songs, one following another in rapid succession, reached my ears,

I had not the slightest doubt that it was a real 'Mocker,' and that my friend had discovered a bird that is very rarely seen in the state of Rhode Island.

When we approached closely enough to enable me to see the vocalist plainly through my field glasses, I made out the uniform gray of his back, the lighter under parts, and the unmistakable white patch on his wing.

As soon as the first excitement of the discovery was over, we sat down to make a systematic study of our new acquaintance. The bird did not disappoint us. He sat on the topmost twig of the old oak, his head thrown back, imitating one bird song after another. Some of these we recognized, and others were entirely strange. Now the joyful carol of the Robin would ring out, only to change abruptly to the harsh scream of a Jay. Then the whimsical "Joe Pratt, Joe Pratt" of the Guinea Hen would be given with such astonishing accuracy that there was no doubt our accomplished friend had received at least part of his education in a farmyard. Then came a song which we both recognized as that of the Chuck-will's-widow. Although we had never heard this southern cousin of the Whip-poor-will, we had attended a lecture by Louis Agassiz Fuertes at which he had imitated the songs of most of the common birds, and among them was that of the Chuck-will's-widow. From this recollection we realized that it was the song of this southern acquaintance of Mr. Mocker's to whom he was introducing us. Among other birds which he imitated that afternoon were the Kingfisher, Flicker, Whip-poor-will, Red-winged Blackbird, Kingbird, Phoebe, Tree Swallow, Maryland Yellow-throat, Catbird, Bluebird, Sandpiper, and Killdeer.

We saw the Mockingbird many times during the next two weeks, usually in the same place where first seen. If he did happen to be away when we reached the place, he usually appeared on his favorite twig on the old oak before we left.

It was not long before the news spread, and members of the Rhode Island Field Naturalists Club and of the Audubon Society came to have a look at the rare visitor. Mr. Harry S. Hathaway, a leading

ornithologist in the state, came to make sure that we really had a Mockingbird, and went away satisfied. We learned from him that this was the third record of a Mockingbird seen in the state in summer.

On June 20, 1922, another Mocker was seen with him. This made things look interesting. Could it be possible that they had a nest. This mystery was soon solved, for one day a member of the Field Naturalists Club saw one of the Mockingbirds carry a twig into a hackberry tree, and when she approached the tree, she discovered the nest in a crotch on a horizontal limb. It was almost completed when first discovered, and everyone kept well away from it for fear that the birds might abandon it if too closely watched. So the nest was completed and five eggs laid in it. During incubation there was no cessation in the activities of the male. When he was not sitting on his favorite perch singing, he would do acrobatics on a telegraph wire. These consisted of sallies straight upward for several feet, followed by a somersault in the air, and then dropping almost to the exact spot from which he started. These maneuvers were accompanied by song and a flashing display of the white markings on his wings and tail.

In due time the eggs hatched, at least four of them did, and the fifth was left lying in the nest with the young. The young Mockers grew fast and would soon have been able to leave the nest. But as fate would have it, one day when they were almost grown a hard thunder storm arose, torrents of rain fell, and when the storm was past, the young birds were found dead in the nest.

After this misfortune the parents left, and were not seen again until October 1, when one appeared near the place where the nest had been. This is the second instance of a Mockingbird's nest being found in Rhode Island.—JOHN WARREN ALDRICH, *Providence, R. I.*

Thrasher and Blacksnake

When my hens gather together, stretch their necks and from a procession, I know this means a snake is crossing their grassy lot and they are following it.

On June 25, 1922 I noticed this procession, and as I was lying quietly in my hammock saw the snake was coming toward me. When about 30 feet from me it crawled through the wire fence into the lawn, and as the hens could come no further, they went away.

I walked slowly up there and saw that it was an ordinary blacksnake about 30 inches long and $\frac{3}{4}$ inch in diameter. After looking at me awhile, it slowly wormed back toward the fence and I returned to the comfortable hammock. After a little while I noticed one of my Brown Thrashers acting peculiarly about the place I last saw the snake. She was moving about with her wings partly extended and walking partly around something. Again I went over there, and found about 8 inches of the snake's tail on my side of the wire fence, the body on the other side. The bird was going back and forth around this tail, and did not seem frightened or angry but was just deliberately going around the tail most of the time, with wings partly extended.

After a while the tail moved on through the fence, and I could then see all of the snake. It was lying in folds, but not coiled. The bird immediately jumped through the fence and commenced going around the snake, about three or four inches from it. I was watching carefully to see if there was eye influence, but there was not. The bird went all the way around with the same action. But I soon noticed she was getting a little more in earnest, and gave the snake a peck. It jerked the body and raised its head, but did not strike. After a few more rounds the bird gave another peck, and the snake struck, but the bird easily avoided it and continued her movements. The snake showed that the hard pecks hurt. After striking the snake, the bird would go around in front of its mouth, within three or four inches, and did not seem at all afraid. At one time she stood almost in front and pecked the snake in the neck. This time the snake struck more vigorously and the bird had to move quicker and further to avoid it. But at no time did it have any trouble in avoiding the strikes, or show any fear. She now pecked oftener and I could see the snake was being hurt and getting restless.

Finally the snake made a fast run through the grass, but again the bird was quicker, and was immediately on its back and striking continuously. This was the only time Mrs. Thrasher seemed mad and in earnest. After going about 50 feet the snake stopped, and the bird soon returned to the starting place, where she examined the place carefully, then flew up in the near-by thick bush, and I saw no more of her. My boy, who had been watching the proceedings, got over the fence and went to the snake. It was coiled up closely, with its head up.

What surprised me most was the deliberate, systematic movement of the Thrasher. Her wings were generally partly extended, sometimes quivering, but she showed no fear or anger. Mr. Snake was not charming her—she was driving him away. I could not see whether she had a nest in this bush or not. Her earlier nest had been about 50 feet farther west, but in the yard*. It looked

dangerous to see her deliberately go up in front of the snake's mouth after striking it, but she was too quick for it.—C. J. MC-BRIDE, *Perryville, Mo.*

*Mr. Otto Widmann, to whom we are indebted for this interesting note, writes us that the Thrasher's nest was subsequently found in the bush to which it flew.—Ed.

Dual Nest of the Robin and Brown Thrasher

Usually the members of the bird family have a certain regard for individual property rights; that is, when a pair of birds select a nesting-site and thereupon carefully build a nest, as a rule all other birds respect this privilege.

A few exceptions in a modified manner may be mentioned: The well-known Cowbird always lays its eggs in the nest of another bird, the victim assuming all maternal cares. Or a pair of birds may build their nest within that of a larger one belonging to others, as, for example, Magpies and Grackles sometimes build their nests in or among those of the Osprey, while the English Sparrow occasionally uses the bulky nest of the Eagle as a nesting-site. Perfect harmony, however, appears to preside over these instances of joint occupancy. Each pair of birds has a different place in the complete nest, the eggs and nest of each are separate, and the arrangement does not interfere with the affairs of either in the least.

The dual nest here described differs, however, materially from any such arrangement; furthermore, a study of the literature of ornithology does not reveal a similar occurrence.

A pair of Brown Thrashers were noticed flying in and out of a large brush-pile and from their actions and notes of resentment it was quickly seen that their nest was near. On close investigation such was found to be the case, and it was quickly seen that the architecture of



A JOINT THRASHER-ROBIN NEST
Photographed by Dr. Wm. C. Herman

his nest was most unusual. The foundation was typical of that of the Thrasher, while the center was that of the Robin, both nests being well made and complete in every detail.

That both these birds had jointly occupied the dual nest was clearly demonstrated by the presence of one egg of the Robin and four of those of the Thrasher. There was some doubt as to the true character of this unusual nest, but when the kind of workmanship and the surroundings were carefully examined, it was clearly demonstrated that no human hands had any part in its arrangement.

At this period the Brown Thrashers were

in full charge; indeed, the Robins were not in evidence at all, this, too, being demonstrated by the single egg of the Robin and the four eggs of the Thrasher.

Such an unusual find was worth watching, so about a week later a visit was made to the nesting-site, to see which family was in charge, but alas the small boy had probably been around, for the nest was completely destroyed, neither the Robins nor the Thrashers being about.

The question arises, in the event of the successful incubation of all the eggs, would the diet of the Brown Thrashers be conducive to the welfare of the young Robin?—
DR. WM. C. HERMAN, *Cincinnati, Ohio.*

Notes on the Plumage of North American Birds

SIXTY-SIXTH PAPER

By FRANK M. CHAPMAN

(See Frontispiece)

Orchard Oriole (*Icterus spurius*). The nestling male Orchard Oriole resembles his mother (Fig. 4), but is paler below and browner above. At the postjuvenile molt, which occurs in July, only the wing-quills and tail-feathers are retained and the young bird acquires a plumage indistinguishable from that of the winter female, which is essentially like that of the summer female (Fig. 6). In the spring there is a partial molt by which the bird acquires a black throat, and usually a few chestnut feathers, a plumage so distinct that at this age the bird's identity often confuses those who are perfectly familiar with the species when adult.

The bird breeds in this costume of the first year and at the postnuptial (fall) molt acquires the plumage of the winter adult (Fig. 2). This, in reality, is the black and chestnut plumage of the summer male (Fig. 1), but most of the feathers have buff or yellowish tips concealing the black or chestnut base. There is no spring molt and the adult breeding plumage is acquired by a gradual wearing of the buff or yellow fringe of the winter plumage.

The plumage of the female shows but little variation with age or season.

THE SEASON

Edited by J. T. NICHOLS

XXXVI. December 15, 1922 to February 15, 1923

BOSTON REGION.—The winter so far has been one of extreme severity, resembling the memorable season of 1919-20. Cold weather has been almost continuous and the ground, practically without frost, is snow-covered to a depth of 4 or 5 feet.

Mr. Forbush, in 'Notes for Observers' (Feb. 15), describes the affect of the coastal storms on those birds which Mr. Nichols, with characteristic originality, calls "off-shore birds." Mr. Forbush says, "Great northeasterly storms have continued to drive sea birds down on the New England coast. Brunnich's Murres, Black Guillemots, Razor-billed Auks, and Dovekies have been more common coastwise than usual. Horned Grebes have been common, but Holboell's Grebes and Loons seem to have been much less so. Several Iceland Gulls and Glaucous Gulls have been noted recently on the Massachusetts coast, and there are three reports of Kumlien's Gull."

Inland we have had a lean bird winter: Crows, Jays, and Black-capped Chickadees, three birds which can be seen every day throughout the year, are present in nearly normal numbers (Chickadees, perhaps, are somewhat less common than usual); few Shrikes and Brown Creepers have been seen and no Grosbeaks or Redpolls. On the other hand, Pine Siskins, contrary to expectation (and prediction in the last report), did winter here in goodly numbers, flocks of 50 to 100 birds being seen repeatedly, feeding on the seeds of the gray birch. Goldfinches wintered also, and were sometimes found associated with the Siskins, although generally the two species, in spite of their close relationship, kept apart. As has invariably been the case in my experience, the flocks of Goldfinches during the winter months were made up of birds of one sex. This habit the Goldfinch shares, I believe, with its European cousin, the Chaffinch, (*Fringilla caelebs*). Golden-crowned Kinglets and Flickers, rather rare birds in the depth of winter, were noted in January and February, and three Song

Sparrows have thus far withstood the season's cold in Lexington.

Throughout the winter the Junco has been a prominent bird and has far outnumbered the Tree Sparrow, this being the reverse of the usual condition. Generally the Juncos pass through eastern Massachusetts in countless thousands in September and October and comparatively few remain here for the winter; their status is that of an uncommon winter visitor, and during some winters they are actually rare. The Tree Sparrow, however, appears late in October and establishes itself throughout the weedy country districts as a regular and common winter visitor. This preponderance of Juncos over the Tree Sparrows is made of considerable interest by the observation of Mr. Aaron C. Bagg, of Holyoke (central) Mass., who tells me that he has noted the same relative abundance about his home this season, Mr. Bagg's record proving that the unusual distribution is of wide extent.

The period closes with New England still in the grip of an arctic-like winter, with not the slightest hint of spring, yet spring is on its way, for the first migrants are here, the winter Robins which arrive from no one knows where and pass on northward far in advance of spring.—WINSOR M. TYLER, *Lexington, Mass.*

NEW YORK REGION.—January was a typically winter month, with frequent snows, and plenty of cold weather; but near the city thaws and touches of rain prevented the snow from accumulating, and there was no excessive cold. Early February brought more snow and the middle of the month saw the ground well snow covered, and they were cold windy days, doubtless of unusual hardship for many birds.

Of species which seldom winter so far to the north it will be noted that two Thrashers were reported on Long Island in the Census the end of December. The Garden City bird was still present January 28, and a wintering Thrasher was noted in a thicket

at Amityville January 27 (L. Griscom). It would seem that some of the Towhees present in December are making good their attempt to winter, as one is reported from Montclair, N. J., January 30 (Mrs. C. B. Hegeman) and H. E. Dounce writes that a Mr. Palmer saw two, February 4, between Bayside and Auburndale, Long Island. A Catbird, which has been wintering in the Bronx, was still present February 12 (C. H. Pangburn). Although likely always present in the cedar groves of the north shore, there are few January records for Robins in the west center and on the south shore of Long Island. One at Amityville, January 14 (R. Boulton) and at Garden City, January 5 and 18 (J. T. N.) are worth noting. Whereas it is probable that not all of the December Hermit Thrushes wintered (after December 19 none was seen at Garden City); there is one reported from Montclair, January 30 (Mrs. C. S. Hegeman), from Wyandott, N. J., February 12 (Breder, Carter and Howland), and in the Bronx, January 28 (F. L. Starck). The Wyandott observers report a Tufted Titmouse on the same date, making good winter residence at this northern outpost of its range. Some Grackles wintered in the Bronx (Starck) and one is reported January 16 at Jamaica, L. I. (W. F. Hendrickson). The Bonaparte's Gull regularly remains very late in southward migration; 5 observed on New York Bay January 14 (R. C. and G. E. B. Murphy), 25 or 30 at Long Beach, L. I., January 21 (Pangburn), would seem to establish its wintering, but H. Thurston says he failed to find them on the New Jersey shore after the very end of January. At the head of Little Neck Bay, L. I., Swamp Sparrows, a couple of Black-crowned Night Herons and Wilson's Snipe are reported as late as January 30 (F. Whatmough and H. E. Dounce). As a single Night Heron was also observed at Amityville January 27, more than the usual small number likely wintered on Long Island. The Cedar Waxwing is rare in this region in winter. Two or three reports have come to hand of its being present on Long Island during the present period, the latest (12 birds) Amityville, January 14 (Boulton). Trips to Amityville

on January 14, 27, and February 12 by Boulton, Griscom, and Nichols establish wintering of Dove, Savannah Sparrow, and Fox Sparrow there. On February 12 there were not less than 11 Vesper Sparrows along the road and railway track from Amityville to Babylon (Griscom and Nichols).

As to visitants from the north, throughout the winter the Pine Siskin has been scattered everywhere, singly and in small numbers. Redpolls have come rather generally into northern New Jersey. A flock of 11 Pine Grosbeaks was observed during a snow storm January 14, Amityville (Boulton). White-winged Crossbills appeared in the hemlock grove of the Bronx Botanical Park January 20 and stragglers were observed there as recently as February 3 (various observers); on February 4, 2 were noted at Englewood, N. J. (Griscom) and also at Plainfield, N. J. (W. D. W. Miller). Whereas the scarcity of Glaucous Gull records for the Jersey shore is likely due to lack of close observation, a Glaucous Gull at Avon, February 4, and Ocean Grove February 11 (Thurston) is worth recording.

A curious coincidence in the return of two Juncos to points where banded at Upper Montclair, N. J. (Howland) and Demarest, N. J. (Bowditch) may be significant. The first of these (No. 47136) was taken on February 22 and 23, 1921, the second (No. 50021) on February 28, 1921. After a season's interim (1921-1922) the first returned at Upper Montclair, January 7, 1923, the second at Demarest, January 15, 1923. Absence of the intervening winter and approximate correspondence both years on the dates when these birds visited the traps, are likely correlated with weather and snowfall, but there is at least a suggestion that both belong to a group of Juncos which winters in northern New Jersey and moves more or less as a unit. Whether such movement be of migratory character, or merely in towards feeding stations from field and woodland under stress of hunger is not indicated.

Crosby, at Rhinebeck, N. Y., has considerable Junco data which may be advantageously summarized in this connection. He banded 29 Juncos in the winter of

1919-20, 32 in 1920-21, 25 in 1921-22 (not counting October transients). Of the first lot 2 were retaken in 1920-21 only; one retaken both 1920-21 and 1921-22; 3 retaken both 1921-22 and 1922-23; one retaken 1922-23 only. One bird only banded in each of the winters 1920-21 and 1921-22, has returned in succeeding winters, both of these in 1922-23. By the laws of chance there should have been almost the exact number of returns from the 29 birds of the first lot as from the 57 birds of the second and third. As a matter of fact there have been over five times as many, which would indicate that the 1919-20 birds are more 'regular' than those of the two following winters. This lot of Rhinebeck Juncos may be acting as a unit, but there is no correspondence with the New Jersey birds mentioned, except for a single individual. A bird banded February 12, 1921 (No. 48207), was retaken November 5, 1922, and again on each of the last 'four days of January, 1923.—J. T. NICHOLS, *New York, N. Y.*

WASHINGTON REGION.—In the mild weather of the present winter the ornithological observer about Washington, D. C., found little of special interest during December, 1922 and January, 1923. Birds as a whole seemed not to be very numerous, although in certain favorable places there was usually to be found the ordinary assortment of winter species. Very little snow fell during the period, and possibly on account of this there were not many birds in the city itself, even in the parks. Very few of the less common northern birds that sometimes occur in winter have been reported. The Red-breasted Nuthatch has not been common though it has been seen by some observers; both species of Crossbills, however, have been noted, the White-winged species by Mr. Edmund Platt, near Washington, on January 1. A flock of Bonaparte Gulls, a species not usually common during the winter here in Washington, was observed by Miss M. J. Pellew on December 30 in Potomac Park along the Potomac River on the outskirts of the city of Washington. Notwithstanding the lack of severe cold

weather, few birds have been heard singing: the Bluebird was heard on December 1, and the Cardinal on December 28.

A few species remained in our vicinity rather late into the winter, such as the Coot, seen by Joseph Kittredge, Jr., on December 3, whereas it usually disappears about November 7, and the Swamp Sparrow, found on the same day by the same observer, whereas it ordinarily departs about November 8. Three Mourning Doves were seen by H. H. T. Jackson near Cabin John, Md., on December 17, 1922; and American Robins were noted on January 1 and 21 near Washington. Both of these species, while found here occasionally during the winter, are by no means common at this season.

The European Starling continues to increase, and pairs and single birds even during the winter have taken up their abode in town, living about the cornices of buildings and other suitable places. Apparently this species is destined in the near future to become one of our commonest resident birds.

Large numbers of Ducks have wintered on the Potomac River, chiefly from about ten miles below Washington, although considerable numbers have come up the Potomac as far as the lower part of the city. They consist of the usual species, although the birds most frequently seen near the city have been American Golden-eyes and American Mergansers. Two or three rather uncommon species, however, have been reported, including the Bufflehead, seen by Joseph Kittredge, Jr., on November 26 and December 3, the Old Squaw, noted by A. Wetmore near Alexandria and Mount Vernon, on January 20, and the Shoveller at Alexandria on the same date. Of the last two species these are the only actual winter records for this district.

The Audubon Society is trying the experiment of spreading corn and other food for Ducks on the bathing beach at the Basin, an inlet from the Potomac River, the idea being to attract larger numbers of Ducks to the immediate vicinity of Washington.—HARRY C. OBERHOLSER, *Biological Survey, Washington, D. C.*

PITTSBURGH REGION.—Generally speaking the season has been unusually mild. There have been several snows but they have not remained long; the six-inch snow of February 9 was the heaviest of the season, and it lasted but three days. An extraordinary drought was a feature of the period although it is doubtful that this condition influenced the bird population greatly.

Irregularly have been seen wintering summer birds such as Bronzed Grackles, Robins, Bluebirds, Flickers, Meadowlarks, and Mourning Doves. Even during the snowy period about Christmas such species were present, and at many points one or two of the above-named species were observed. Mr. Thomas D. Burleigh and myself recorded the one Towhee of the season, December 28, near Aspinwall; on the same day was seen a large flock of Cowbirds (my first local winter record). Major John D. Meyer recorded Cowbirds later, on January 10. Mr. Fred L. Homer's record for Wilson's Snipe, December 25, at Transfer, Mercer County, is interesting, and Mr. Burleigh's winter records for this species at State College, Center County, indicate to me that the bird may be fairly regular winter resident where conditions are favorable. Mr. Homer also observed several Red-bellied Woodpeckers in the Mercer County region during Christmas week. A Sharp-shinned Hawk, Raccoon Creek, Beaver County, December 23, and a Marsh Hawk, Hart's Run, Allegheny County, January 27, are interesting records. Mr. Jesse Jones, and other observers saw a Catbird at Deer Creek, on January 26. This is possibly the most unusual of the winter summer-resident records.

An early northward movement of waterfowl has been in evidence. Mergansers were seen at Raccoon Creek, December 23; Mr. Jones recorded Horned Grebes at Braddock Reservoir on February 7; Herring Gulls and a species of *Marila* were recorded February 11 along the Ohio River by Mr. Rudyerd Boulton.

Most of the usual winter birds have been common. Golden-crowned Kinglets have been perhaps unusually abundant. Juncos, however, have been unaccountably rare

since the first of January; on two trips taken recently not a single individual of this species was seen. Song Sparrows also have been scarcely as common as usual in some portions of the region. Prairie Horned Larks, while common near Duquesne, according to the report of Mr. Joseph Galloway, are not evident in many localities where they have been recorded previously. Winter Wrens have been seen at least four times, but have certainly not been common.

Particular interest, however, centers in the hosts of irregular northern visitors which we have had of late, especially in the local conifer growths. Enormous Crossbill flocks, particularly of the White-winged species have been repeatedly observed at Wildwood, by practically all enthusiasts. Mr. Bayard Christy saw the species also at Sewickley and Mr. Boulton found them at Raccoon Creek. Strangely, Mr. W. E. C. Todd failed to find them among the hemlocks at Four-Mile Run, near Beaver. The Red Crossbill has not been nearly so abundant as the other species on most occasions, but whenever present, has occurred with the White-wings. This may indicate that the flocks of these two species have swung down from the north simultaneously, and that therefore the Red Crossbills present with us, are far northern individuals of their species, and not the nesting birds of our own local mountainous area. These Crossbills fed almost exclusively on hemlock seeds, and were rather fearless, but restless.

Pine Siskins have also been unusually common, even since early November, particularly where black birches, alders, and hemlocks occur. On February 10 large numbers were seen at close range, near Bakerstown, feeding low in the bushes, by Messrs. Homer, Alfred Emerson, Hartley Anderson and myself. The Siskins are usually rather wild.

There have been rumors also of Pine Grosbeaks, but until sufficient evidence is offered I prefer not to regard the records positive. The general influx of wanderers certainly causes us to look eagerly for both Pine and Evening Grosbeaks, as well as for Northern Waxwings.—GEORGE MIKSH SUTTON, *Statistical Secretary, Audubon Society of Western Pennsylvania.*

OVERLIN (OHIO) REGION.—The season has been rather mild here, and our usual winter birds have been with us in fair numbers. There has been distinctly less snow, and higher temperatures than is customary, though occasional heavy winds from the south, southwest, west, and northwest have made shelter desirable.

Golden-crowned Kinglets were seen more frequently than in the same season of the past two years. Pine Siskins were reported in small numbers, and Towhees, two together, were found in well protected underbrush on January 20 and February 12. A flock of 8 Bluebirds were also found, in a fairly open wood-lot, on January 18. A flock of 6 Bronzed Grackles were seen in a town back lot, feeding on remnants of old corn and weed seeds, and individuals were seen in town on different occasions. On January 20 a flock of about 50 Robins, noticed first in a wood three miles north, flew south over Oberlin, and there have been at least two of the species in town all winter. Quite a number of ducks were reported from marshes near Lake Erie on January 19, and a Mourning Dove was seen near the lake on December 26. All in all it has been too open a winter to call down any of the northern birds, and the food supply has been good.—HAROLD C. JONES, *President of Cardinal Ornithological Club, Oberlin, Ohio.*

CHICAGO REGION.—The winter season for the Chicago region has been marked by the absence of severe cold or stormy weather. A few days at the beginning of February and a below zero wave on the 14th have provided us with our only true winter weather. This mildness has undoubtedly been responsible for a few odd records and for the fact that some birds which usually winter in very restricted numbers are noticeably commoner this winter.

On December 16, near Oak Park, Dr. Eifrig found 5 Marsh Hawks. December 17, Mr. B. T. Gault and Mr. C. J. Hunt, on a trip along the Des Plaines River from River Forest to Grand Avenue, were somewhat surprised to find a Brown Thrasher. On the same trip they reported a Barn Owl, as well as the common winter residents,

Hairy and Downy Woodpeckers, Crow, Tree Sparrow, Slate-colored Junco and Cardinal.

Mr. Coffin reports a Pine Grosbeak which remained in Jackson Park for about three weeks. It appeared late in December and was last seen on January 17. The bird was discovered by Dr. Lewy, who showed it to several friends during its stay in the park. The bird seemed to be entirely alone.

On January 1, Messrs. Watson and Leopold and the writer made a trip through the forest preserve and environs of Riverside. The most striking phenomenon was the abundance of the Tufted Titmouse. One flock contained about 25 individuals. In addition to the commoner winter residents, one Song Sparrow was found. One Redpoll was observed and a large flock was heard. Dr. Eifrig reports a single Northern Shrike, seen by him on January 11. Throughout the month of January, the winter Ducks, particularly the Mergansers, were so common on Lake Michigan that even the city newspapers made comment upon their abundance. On January 15, a pair of Mourning Doves were seen near Waukegan. On the 21st, Messrs. Hunt and Gault spent several hours near Dune Park, in the sand dunes of northern Indiana. They found there in addition to more common species, the Screech and Great Horned Owls, small flocks of Redpolls and Siskins, and about 25 Snow Bunting. In one of the more sheltered spots, six Myrtle Warblers were found, one of which was taken by Mr. Hunt. The specimen was found to have been feeding upon berries of the poison sumach. On account of the mildness of the winter, and the sheltered location it seems quite probable that these Warblers had spent the greater part of the winter there. Mr. Hulsberger of La Grange reports Arctic Three-toed Woodpecker, seen February 7, and several times subsequently.

Mr. Lyon of Waukegan continues to have most interesting experiences in his work of bird-trapping and bird-banding. Throughout the winter, a White-throated Sparrow (an immature) has remained with him, entering the traps almost daily. The certainty of finding good food seems to attract several

varieties of the Sparrow family, for Mr. Lyon has had Fox, Song, Harris's and Tree Sparrows which have used his traps as regular feeding stations, and have remained later in the fall than is customary with birds of their species. Purple Finches appeared at Waukegan about February 8, since which time Mr. Lyon has trapped and banded about 25. February 11, Mr. Lyon reports large flocks of ducks on Lake Michigan. Several Oldsquaws were seen. On the same day Mr. Lyon trapped and banded a Song Sparrow.

Mr. Hulsberger and Mr. Eifrig report the Meadowlark as a common winter resident this year. About 30 of these birds have been seen regularly near Hinsdale. Another flock of 25 has been found at Riverside, and each trip near Oak Park has netted 5 or 6 birds seen. The Meadowlark is with us in small numbers in mild winters, but frequently does not remain throughout the winter. Robins have been reported from many parts of the region. They have not been reported so frequently for several winters. The Short-eared Owl is another bird which has been with us in goodly numbers. It has been reported from all parts of the region. Mr. Lyon saw 5 of these birds at one time on February 11.

An occurrence which is worthy of note here, although it does not come within the Season is the taking of a Jaeger from the vicinity of the Municipal Pier, on November 9, 1922. The bird was shot by a hunter, and through Mr. Kahmann, the taxidermist, it was secured by Dr. Eifrig for inspection. He finds the specimen is a Parasitic Jaeger. This seems to be the first positive Illinois record for this species, though there are several sight records of birds thought to be this Jaeger.—GEORGE PORTER LEWIS, *Chairman Report Committee, Chicago Ornithological Society*.

KANSAS CITY REGION.—In the absence of the regular contributor, the undersigned have undertaken to write this letter in order that the continuity of the reports from this region shall not be broken.

The weather in the period under discussion has been exceptionally mild and pleasant

with very little precipitation. January was the warmest January in this region for 35 years. This mild, open winter was somewhat unfavorable for the northern visitors, no Siskins, Crossbills or Waxwings being observed.

A solitary Yellow-bellied Sapsucker was seen on December 17 on a pine tree in the Forest Hill region. On the same day a flock of over 200 wintering Robins was located in a draw of hackberry trees; they seemed to be feeding on the berries of these trees, and we might add that this flock has remained throughout the winter. These Robins were so tame that we easily approached within 5 feet of the nearest of the birds before it took flight.

Large numbers of Red-headed Woodpeckers and Blue Jays wintered in the deep woods of Shiloh Hollow feeding on acorns. Red-bellied and Hairy Woodpeckers appeared to be uncommonly plentiful this winter and were generally distributed throughout this region. A few Meadowlarks were observed near the Community Golf Course on December 24 and on January 1.

Chief among the species observed by Mr. Charles W. Tindall of Independence, Mo., was a flock of 15 Mourning Doves, 2 Herring Gulls, 2 Yellow-shafted Flickers, and a flock of 10 Bluebirds. On Christmas Day, with the temperature over 60 degrees, a Golden-crowned Kinglet was seen—the only bird of this species observed during the entire winter. On the same day in the Country Club District, a Mockingbird was seen, and flying overhead, a flock of Red-winged Blackbirds was noted. On January 1, a single Wilson's Snipe was flushed from a spring run.

Mr. Charles D. Bunker, Curator of the University of Kansas Museum, reports the taking of 2 Barn Owls by a farmer near Lawrence; and Mr. Eugene Linsdale of the same museum, saw, on January 13, a Winter Wren, while Mr. E. R. Hall, also of Lawrence, reports seeing, on December 25, a Fox Sparrow in a flock of Harris's Sparrows.

Encouraging reports have been received from observers from Jackson County and points south of us, of the nesting of hundreds of wild ducks in the swamp lands last

summer, for the first time in many years; and the nesting of these birds in these localities is the result of the Migratory Bird Law, which affords protection to them in the mating and nesting season, and will result in greater numbers and an earlier appearance of these birds in the fall.—B. F. BOLT and DIX TEACHENOR, *Kansas City, Mo.*

DENVER REGION.—Even though the season now under report has, so far, been very mild, it has had hundreds of birds on the prairies in the vicinity of Denver. Most of them have been Longspurs, but mixed with them there have been many Horned Larks. Of the Longspurs I have been able to identify only one subspecies, the Alaska Longspur. Reports from all over the territory north of Denver lead me to think that it has all been pretty well filled with Longspurs, and the winter visiting Horned Larks. Mild or severe, every winter has a few American Rough-leg Hawks in and about Denver, and they are often associated with a few Ferruginous Rough-legs, though the latter are apt to be absent if the season be severely cold. Both species have been seen here during the past two months. There have been a great many Robins in and about Denver this season; several reports of flocks of a hundred or more have come to me, though I myself have not seen the species in any such numbers; many, however, have come to my notice at odd times. This species seemed to have had its greatest wave in the city about January 18. Many Meadowlarks and huge flocks of Red-winged Blackbirds also have wintered here.

As the Lewis Woodpecker gradually spreads eastward on the plains its habits have become more and more like those of the Red-headed Woodpecker; thirty years ago I seldom or never saw one on the ground, while now it is a common sight, especially on the prairies between Denver and the foothills. It has been an interesting thing to watch a species change its habits to suit its environment.

Many Cassin's Purple Finches have been noted in the region; a companion and I saw a considerable gathering of this Finch

immediately east of Denver on January 14, which was a mild and pleasant day. On such a day one might reasonably expect to see some waders about the open waters, an expectation which was realized as Killdeer were much in evidence along Tollgate Creek. Since December 15 the Crossbill has been noticed in the city twice, a single bird on December 25, and a flock of 8 on January 14.

For the first time in many years a Hairy Woodpecker was detected in the down-town parts of the city, a single bird being noted busily feeding on some cottonwoods within a block of the State Capitol.

There have been many Song Sparrows in the region wherever there are swampy or weed-lined ditch areas. A few can always be found in such areas any winter, but the species has been much more than ordinarily common this season. On February 5 a single creeper was noted near my home; perhaps it had advance notice of the cold snap which followed.—W. H. BERGTOLD, *Denver, Colo.*

PORTLAND (OREGON) REGION.—A cold spell in late November and early December seemed to bring more birds about feeding stations and residence sections of the town. The first large flocks of Juncos appeared at my home on December 11 and 12, and at the same time a flock of 1,500 to 2,000 Crows commenced to forage around small farm sections adjoining the city, a place that they usually avoid when feed is available elsewhere. In this immediate vicinity there were several fields of sweet corn that remained unharvested and the entire flock of Crows foraged in these fields most of the day for several days.

On December 24, an effort was made to take a Christmas census for BIRD-LORE, but the writer came down with la grippe the following day and was unable to report it. Forty species of birds were noted on the trip with nothing unusual noted. The most interesting species noted on this trip were Audubon's Warblers and Pipits, two of each form being seen. Another trip was made over this same district on December 31, but no different species than those noted the previous trip were observed.

A comparative scarcity of such forms as

Evening Grosbeaks, Crossbills, and Fox Sparrows has been noted in my experiences this winter, while Varied Thrushes seem to be as common as usual. During the month of January we had almost constantly heavy rains and bird movements were not very noticeable. In the latter part of January a trip was made to the coast country at Yaquina Bay and the usual great variety of winter waterfowl was much in evidence. At Yaquina Bay on January 27, 38 species of birds were noted, nearly all of them water birds. Black Turnstones, Black-bellied Plover and Surf-birds were the most interesting forms noted on this trip.

On February 6, a tremendous assemblage of Gulls composed mostly of Glaucous-winged and Short-billed Gulls were noted over the mouth of the Cowlitz River following the smelt run which was just entering this river. This run of smelt always causes a great congregation of water birds.

On February 9 the first Robins appeared at my home. This is somewhat later than usual and no very marked migration movement is yet in evidence on February 12. Usually by February 1 great flocks of Robins appear in that part of town. On February 11 a great flock of male Red-winged Blackbirds appeared in the same locality. These are the only evidences of migration to date.

The last week in January and to date in February have been unusually cold and stormy for this region, and Robins, Bluebirds, Meadowlarks and Flickers, which usually appear in my dooryard during the first week in February, have not yet appeared in any great numbers.—IRA N. GABRIELSON, *Portland, Ore.*

SAN FRANCISCO REGION.—The season has been one with rainfall slightly exceeding the average. The days intervening between rainstorms have on the whole been moderately cold, while in the first part of February there were a number of days with heavy frost. Bird life on the whole has seemed somewhat less abundant than is usual for the Bay region during the midwinter period. A number of our winter visitants are noticeably scarcer, the reason for this

scarcity not being apparent so far as local conditions are concerned.

California Quail are present in fair numbers. Sharp-shinned Hawk seems less numerous than usual, due probably to the scarcity of winter visitants. Red-breasted Sapsuckers have as yet escaped the eye of the writer. Fox Sparrows, Audubon Warblers, and Hermit Thrushes are all much less common than usual. Western Bluebirds were about in the early part of the winter and were of daily occurrence. Then they practically disappeared, to be seen again on February 11. Cedar Waxwings have also been quite scarce, until the end of the period, when they have come in with the Robins. Varied Thrushes were observed in the canyons near Berkeley on January 27 and February 10. Townsend Warblers were present in somewhat increased numbers on February 9 and 10. Ruby-crowned Kinglets are present in the oak and chaparral and a number of bands of Golden-crowned Kinglets have been seen in the forests of planted pines on the slopes of the Berkeley Hills. Robins have been of local occurrence and uncommon but during the second week of February have come in in numbers to feed on the crops of toyon, pyracanthus, cotoneaster and other berries. On February 6 and 7 several hundreds of the birds were present in the park adjacent to Lake Merritt, seeking berries in the bushes and earthworms in the lawns. Several of the birds were giving fragments of song.

Among the bird records of more than usual interest are the following. Band-tailed Pigeons were seen in canyons northeast of Berkeley on several dates in January, a flock of about 12 individuals being observed on January 25. A White-throated Sparrow took up temporary residence in some garden shrubbery and hedge near the Faculty Club on the University of California campus. The bird was first noted on January 24 and thereafter on a number of occasions. The university field class in vertebrate zoölogy observed a Roadrunner in Claremont Canyon on January 20 and on February 10 the feathers of a bird of this species were found in Strawberry Canyon. During the second week of February a notable increase was

noted in the numbers of sea Ducks in the waters adjacent to the ferry moles on the east side of San Francisco Bay. Canvasbacks and Scaups, and White-winged and Surf Scoters were the species composing this invasion.

A group of five local ornithologists have banded together this winter, under the initiative of Mr. A. S. Kibbe, for the purpose of making a weekly census of the water bird population on Lake Merritt. Counting began in November and will continue until the end of March, or later if conditions warrant. The total number of birds has varied greatly, extremes on different week-ends being 1,280 and 5,563. A census made by the writer on Christmas Day revealed the following birds, in the numbers indicated: American Eared Grebe, 3; Ring-billed Gull, 104; Glaucous-winged Gull, 15; Mallard, 25; Baldpate, 405; Shoveller, 40; Pintail, 329; Canvasback, 280; Scaup, 100; Ruddy Duck, 125; American Coot, 330; total, 1,756. During much of the present season and at various times during past years a male European Widgeon has been present among the Ducks at the Lake. It was reported in December, and was seen as late as February 4.—TRACY I. STORER, *Berkeley, Calif.*

LOS ANGELES REGION.—The months of November and December, 1922, and a great part of January, 1923, have been characterized by very fine mild weather, the temperature on many dates approximating summer levels. In each of the months named there was one storm of several days' duration, with snowfall and low temperatures in the mountains, and gentle rains with moderate temperatures in the valleys. These conditions appear to have been reflected in the movements of birds.

Birds from far northwest have been scarce. Varied Thrushes that came early in November to their usual haunts in foothill canyons, finding them dry, apparently moved on in search of better feeding grounds. Only since recent storms have softened the ground and caused water to flow in the little streams of the oak filled canyons have they returned, their numbers

much augmented. Fox Sparrows have been absent from the foothills but were found farther back in the ranges.

Birds from the higher altitudes—Western Robins, Mountain and Western Bluebirds, California Purple Finches, Audubon Warblers, and Pine Siskins have been abundant and widely distributed in the valleys.

Band-tailed Pigeons appeared in the oak regions of the foothills early, their numbers indicating that they are increasing under protection. Red-breasted Nuthatches appeared about the middle of October, and have been seen frequently in varying numbers. Cedar Waxwings appeared early, but not until February 1 did they come to certain regular winter feeding grounds near Whittier and in Los Angeles. About the same date Robins found the abundant crop of holly berries (*Heteromeles*), in the Hollywood Hills. An unusual number of Phainopepla appear to be wintering, reports of their presence having reached me from Claremont, Pasadena, and Griffith Park. In the latter place a Slate-colored Junco has been seen in company with Thurber's Juncos. Its identity has been satisfactorily established, and it has been seen on different dates by a number of people, including the writer.

Mrs. F. T. Bicknell reports seeing, on January 12, while en route to San Diego, two White-throated Sparrows (*Zonotrichia albicollis*), Mourning Doves, Western Meadowlarks, Western Lark Sparrows, Horned Larks, and Pipits were found to be abundant in the region traversed. Heerman Gulls were found to be increasingly abundant southward. One Black Brant was seen. Returning by inland route, White Pelicans and Western Grebes were seen at Lake Elsinore, and near that place a few Cassin Finches were seen in an olive grove. Eighty-three species were listed for the two days.

The harbor district has proved as interesting and profitable a place for observation of birds as in former seasons, due probably to the abundance of food provided by the work of dredging and filling in progress there. Immense numbers of Gulls assemble there, as well as many shore birds. American

Egrets have again been present in varying numbers, five being the maximum number reported to me. Mrs. C. H. Hall reports seeing one Snowy Egret there on January 16. On the same date three Long-billed Curlew, a few Willets, Marbled Godwits, and Long-billed Dowitcher were seen. Corroborative evidence of the presence of the last-named species in the region is furnished by the County Museum, which obtained three specimens at about that date. That a considerable number of Semipalmated Plover were seen there on the above date, and also on January 21, is stated by three competent observers well acquainted with the species. A search of all records accessible to me fails to disclose any other recent occurrence of this species here in midwinter. Black-bellied Plover, Least and Western Sandpipers were very abundant. On January 21 one Royal Tern was seen and a Short-eared Owl was found in the marshes.

February 1 dawned cold and cloudy, with a thin film of ice on the bird-bath in the writer's garden. Two valiant bird students went out to the foothills where they found a decided increase in the number of Hermit Thrushes and Golden-crowned Sparrows, and saw 4 Varied Thrushes. An Anna Hummingbird was been gathering material from an oak trunk. Followed to her nest she was found at work placing bits of lichen around the rim of the completed nest. Cold rain began to fall as the watchers saw her take her place in the nest and continue the work of shaping and adorning. The storm increased, clearing next day to reveal snow covering the mesas at the base of the

ranges. An auto trip to the Tejunga Sunland region to enjoy the snow, resulted in some extraordinary birding. Within the compass of a few acres comprising dry brush covered hills, level fields, a wet swale whose waters gathered into a little stream flowing between willow bordered banks, a reedy pool, ancient sycamore trees, a grove of venerable oaks, rows of tall eucalyptus trees, and numerous telephone wires with their supporting poles, probably 1,000 birds of some 25 species had found a haven from the storm. In greatest numbers were the Band-tailed Pigeons, numbering probably 300 to 500. Robins, Mountain and Western Bluebirds, Purple Finches, Pine Siskins, Audubon Warblers, Green-backed and Willow Goldfinches, added to the vivacity of the brilliant picture. Varied Thrushes were estimated at 12 to 20. A Cabanis Woodpecker was found in the oak grove, and three Wilson's Snipe were flushed several times from the swale. The place was visited on February 3, 4, and 7, and varying numbers found on each trip. The snow rapidly retreated to the heights after a few hours sunshine and many of the birds scattered out.

On the same dates, there was a notable gathering of Loons and Western Grebes in Santa Monica Bay, on February 8 White Throated Swifts visited Echo Park, and on February 10 several San Diego Wrens were heard singing.

A certain Buzzard's roost in San Diego County was vacated by its 75 nightly tenants early in November, but about the middle of January small numbers reappeared, increasing nightly.—FRANCES B. SCHNEIDER, *Los Angeles, Calif.*

Book News and Reviews

EXTRACTS FROM THE DIARY OF OTTO WIDMANN. Trans. of the Academy of Sciences, St. Louis, Mo. Vol. XXIV. No. 8, December, 1922. 77 pages.

It is a great pleasure to see some of the careful, intensive, sympathetic bird studies of this veteran ornithologist brought together in one publication. Two of them were first published thirty-nine years ago, but we commend them to present-day students as models of observation and presentation. One describes 'How Young Birds are Fed' and records 3,277 visits (1,454 by the males, 1,823 by the females) paid by sixteen pairs of Martins to their nests between the hours of 4 A.M. and 8 P.M. on June 24. The second article, entitled 'Where Martins Roost' is a graphic description of the habits of these birds, full of information and vivid pen pictures.

Other papers are on the 'Nesting Habits of the Purple Martin,' 'The Crows' Winter Roost at St. Louis,' 'Our Birds in Winter,' the 'Chimney Swift,' 'Birds of the Ozarks' and 'Reminiscences of a Visit to Branson and White River, Spring of 1906.' All contain original material and make welcome additions to our published sources of information concerning birds. We hope that Mr. Widmann will make further explorations in his diaries.—F. M. C.

QUESTS OF A BIRD LOVER. By JENNIE BROOKS. Richard G. Badger, Boston, 1922. 12mo, 184 pages.

The author of this volume is in truth a bird-lover, and she writes of her friendship with various feathered folk so joyously and with so evident an appreciation of the value to man of association with birds, that no one, we are sure, can read of her experiences without feeling a desire to duplicate them.—F. M. C.

The Ornithological Magazines

THE AUK.—Two papers of considerable length are concluded in the January issue. Griscom concludes his interesting discussion of field marks and behavior of the Anatidæ

of the Atlantic Coast with a review of Sea Ducks, Geese, and Swans. This is a paper which will be helpful for the field student of these birds, not only in giving useful hints that will aid in their identification, but also in showing in how far they may and may not be identified in life. The concluding part of a statistical study of the nesting of Mourning Doves, by Margaret M. Nice, contains a discussion of the behavior of the parents, the breeding season, enemies, successes and failures of broods.

'The Black-crowned Night Heron' by A. O. Gross (first part), is based on a statistical study of a colony numbering at least 2,300 pairs, near Barnstable, Mass. Chapters on names, range, migration, breeding-places, food, and calls of this familiar bird are somewhat monographic in scope, covering its entire range with many references to the literature. Four photographs illustrate the Massachusetts colony and its environment.

'Notes on the Short-eared Owl,' by C. A. Urner, is mostly on the nesting birds of salt marshes near Elizabeth, N. J. Circumstantial evidence is presented that this species sometimes removes its eggs or helpless young to a place of safety in an emergency; that at an early age the young are fed chiefly on smaller birds, later on small mammals; and that an identical nesting-site is sometimes occupied for more than one season. Five different call-notes are described for this Owl.

C. W. Townsend finds Northern Horned Larks and Pipits breeding on regions of tableland above tree limit near the north coast of the Gaspé Peninsula, far south of the general southern limit of their breeding range in this longitude. Two photographs illustrate the country.

M. S. Crosby publishes faunal notes supplementary to 'A Preliminary List of the Birds of Dutchess County, N. Y.,' issued by the Rhinebeck Bird Club, 1921. Dutchess County borders on the Hudson River and is therefore in one of the main

arteries of north-south migration, which makes it of special interest to students of migration dates. Wintering of the Wilson's Snipe; occurrence of such maritime species as Knot, Semipalmated Plover, and Turnstone; details of the identification of a Hoary Redpoll in life; and a sporadic outbreak in 1922 of the usually more western Cerulean Warbler, are interesting items.

There are several systematic papers. Todd reviews a tropical American genus of Finches, *Cyanocompsa*, with a key to the known forms and the two new subspecies described. Oberholser reviews the status and names of races of the Plumbed Mountain Quail of the Pacific States, proposing a new name for one form. Coale finds that the eastern Little Black Rail is racially distinct from that of Jamaica (photograph of skins). Dickey describes a new Clapper Rail from the Colorado River Valley. Palmer chronicles the Fortieth Stated Meeting of the American Ornithologists' Union, held at the new Field Museum in Chicago, and as secretary of the Union reports on its recent activities.

In General Notes one finds the usual variety of faunal and other items. F. H. Kennard has seen the Loon under water use its wings in swimming, and again swim with the feet only, wings close to the side. S. W. Brooks describes a Green Heron which plunged beneath the water for Goldfish, from the stone rim of a city park pond. H. M. Holland records an egg of the Red-winged Blackbird (perhaps the same individual bird) in two Vireo nests. Wetmore's discussion of the periodical diminution in numbers of the Carolina Wren near Washington, D. C., due to winters with an unusually heavy snowfall, is interesting in connection with the presence or absence of this species at the northern edge of its range, near New York City, for which see reports in 'The Season' department of BIRD-LORE. Among other Labrador notes, H. F. Lewis mentions a Chipping Sparrow at Mingan, July 25, 1922. The appearance and numbers of southern birds in Labrador should be carefully recorded so that at some future date details of their invasion of this northern territory will be known, if such a

general movement is actually in progress.

E. A. Poole visited North Carolina coastal islands the end of June, finding Brown Pelicans, rare on that coast a few years ago, abundant; and obtaining some very interesting data on the presence of northern-breeding shore birds. Continued observations on shore birds at such a locality from mid-June to mid-July would be of great interest. Anent the identification of casual birds in life, a Yellow-crowned Night Heron reported in Pennsylvania (Gillespie) was an adult and readily identified. A juvenal bird of the same species reported from New Jersey (Urner) would carry little weight, but for the accompanying detailed account of the careful observation upon which the identification is based. The reviewer (familiar with the Yellow-crown in the South) finds this account convincing. The occurrence of Nelson's Sparrow at Chicago, May 27, is thought to be good evidence of its breeding (Eifrig) "as the Sparrow migration is over by that time." The fact that the height of migration for the Acadian Sparrow (maritime race of the Nelson's) comes at the end of May on the Atlantic coast, may have some bearing on this problem.

Some notes from records of the New England Bird-banding Association are placed in Notes and News. "A Bronzed Grackle, banded September 11 by Mr. Charles B. Floyd, Auburndale, Mass., was found wounded at Elizabeth, N. J., November 7. Later it recovered and flew away with others of its kind;" is an item of interest to observers in the New York region who believe their late fall Grackles to be primarily of this northern and western race, although the Purple Grackle is the breeding bird.

The editorial policy of following the latest supplements to the A. O. U. Check-List as regards generic names in faunal papers, quite noticeable in this number of *The Auk*, seems to the reviewer a questionable one. The names in the latest published edition of the Check-List (followed by standard bird books) will always be more familiar to ornithologists who do not happen to be particularly concerned with the vagaries of nomenclature.—J. T. N.

Bird-Lore

A Bi-Monthly Magazine

Devoted to the Study and Protection of Birds

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

Contributing Editor, MABEL OSGOOD WRIGHT

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Bird-Lore's Motto:

A Bird in the Bush Is Worth Two in the Hand

THE Roosevelt Memorial Association (No. 1 Madison Ave., New York City), is preparing a volume on Col. Roosevelt's Work for the Conservation of Wild Life, and asks for the loan of letters by Col. Roosevelt on this subject.

IN this issue of BIRD-LORE we give the center of the stage to the Robin, which, more than any other, is the bird of the month. After mid-May, when the keen longing for spring has been in part, at least, satisfied, the Robin's song falls on accustomed ears, then alert for the voices of more gifted songsters. But in April he is both the master soloist and chorister. All the promise of the new-born year rings in his cheerful carol and he sings alike for layman and bird man.

No city park is too small, no town border too squalid, no garden too formal for him. Probably no other American bird is so abundant and, throughout the larger part of our country, so universally distributed. Where more retiring, less adaptable birds have decreased or disappeared before the changes wrought by man, the Robin has thrived. Civilization has diminished the ranks of his enemies and added to his sources of food. When worm-hunting on close-cropped lawns he seems to be in an environment especially designed for him by nature rather than by man, while cherries and strawberries now form as much a part of his normal bill of fare as do worms.

No other native bird is so friendly; none

shows a greater confidence in our good will. Bluebirds, Wrens, and Martins take up their abode in the houses we erect for them, but the Robin often makes our home his. Almost everyone living in the country where Robins nest has had experiences resembling those described by contributors to this number of BIRD-LORE. It is not alone that the birds find suitable nesting-sites in and about buildings: often, indeed, the site selected is far more difficult to build on than a tree-crotch. Witness the experience of the Robins of which Mr. Warren and Mr. Samson write. Their nesting material blew away or fell as fast as they placed it in position and success was finally won only by the birds' undaunted persistence. Nor could the birds described by Mr. Eves have selected the rounded surface of a hanging dishpan as preferable to the limb of a tree. One is almost tempted to believe that it is desire for human companionship which induces the Robin to select nest-sites so obviously unsuited to his wants. Certainly no one can deny the birds' sociability. They migrate and pass the winter in great flocks or troops and even when nesting do not exhibit that aggressiveness and jealousy which prevents many birds from building near one another.

It is to all these 'abilities' that the Robin owes his success. Ability to subsist on a varied diet, adaptability in habit, sociability in disposition, make a combination of attributes which gives their possessor a tremendous advantage over less favored competitors.

Doubtless it is because of their abundance and familiarity that partially or wholly white Robins are so often reported. For the same reason BIRD-LORE is frequently embarrassed by the receipt, for publication, of records of these albinos. The unusual, of course, always claims our attention and the appearance of a white Robin, for example, invariably creates interest and comment. But the publication of such a record cannot be expected to arouse interest unless it be accompanied by some observation other than that of the birds albinism. In the story of Mrs. Tuttle's albino Robin we have such observations.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by A. A. ALLEN, Ph.D.

Address all communications relative to the work of this department to the Editor, Cornell University, Ithaca, N. Y.

BIRD COMMUNITIES

There are many ways of learning to know birds. At first there is plenty to keep us busy just learning the names of those that come and go through our gardens or our public parks. Then, when we have learned their names and can speak them at sight, we have to learn their songs and all their variety of call notes. Next we learn whence they have come, where they are going, and which ones will stay with us throughout the summer. And of those that stay with us, we learn where they nest and how, what color eggs they lay, what their young are like, and all the little secrets of their home life. Yet we are not satisfied.

We find the name of a bird in our bird books that we have not seen and we are not happy until we have discovered it. It may be a long chase, for doubtless its habits are different from those of the birds we have become familiar with, or it frequents different places, or it resembles some other bird so closely that we have overlooked it, but we are not content until we have found it. Finally we become familiar with every nook and corner of the region in which we live that is likely to shelter a bird, and we know just where to go to find any particular kind of bird.

At first we absorbed this knowledge in a general way from experience. One place always brought us good luck with Warblers, another place was good for Sparrows, still another for Herons, and so on. With increasing experience we learn to associate different birds and put them in particular types of environments; and when we see one of a group we begin to look for the others, or when we see a particular type of environment, we begin looking for certain birds. We soon learn that some birds are much more restricted in their distribution than others, occurring only in one type of environment, while other birds are very adaptable and range widely. Particularly is this true after the birds are nesting. Thus we have a community of garden birds, of woodland birds, of field birds, of marsh birds, and so on, and it is a matter of surprise worthy of note when we find a bird out of place.

The novelty of a Swamp Sparrow in the garden, a Woodcock on the lawn, a Bittern in the park, or a Grouse in the orchard gives added pleasure to the discovery when we know that they have come there through some unusual circumstance.

Perhaps no bird community is more interesting to study than that of the cat-tail marsh with its highly specialized species. The marsh is at its best from the middle of May until the first of June, but if one wants to get familiar with its multitudinous life, both plant and animal, he should begin his excursions during April before the vegetation gets too much of a start. It will, therefore, be a good community for us to begin with and in subsequent numbers of this Department we can direct our 'bird walks' through others.

The editor feels that he can furnish no better picture of the spring life of the marshes than that which he published in *American Forestry* a few years ago. He will, therefore, quote largely from that article, in the hope that it will inspire greater appreciation for one of nature's treasure houses and lead some teacher to direct her children toward, rather than away from, these dreaded places.—A. A. A.

APRIL IN THE MARSHES

There are some who shun the marshes as the abode of snakes and fever, the haunt of naught but evil, and to them the strange voices which come from its unknown depths are uncanny. The rhythmic waving of the sedges, the cold breezes at evening, and the blackness of its waters portend no good. But there are others who have spent hours wading through its dark waters; who know when the pickerel run and the bullheads nest; who know when the Mallard, the Widgeon, and the Pintail circle over its ponds, and who know in which high elm the Wood Duck nests. They know how the Redwing hangs its nest and where to find the Coot and the Rail. They have looked into its dark waters and seen the caddice worm carrying its case and have watched the dragonfly nymph stalk its prey. Lucky few who know the marshland and therefore love it!

Early in March when the ice has scarcely thawed from its flooded surface, before the pike have begun to splash and before any birds have come, the notes of a sun-warmed peeper announce that spring is on its way. And next, from out of the clear blue sky comes the low sweet chuckle of the first Bluebird; the joyful 'gurglee' of the Redwing greets one's ears, and towards dusk the wild ducks fly in narrowing circles and alight with a splash among the brown flags. The Geese go honking overhead in a great wedge, and then comes the spring. Each evening great flocks of migrating Redwings settle like smoke into the dried flags and each morning they depart for northern marshes, males first by themselves, and two weeks later the females. All night the shrill notes of the peepers fill the air with a deafening chorus. The yelping of the wood frogs and the lower pulsating choir of the meadow frogs announce that soon the waters will be teeming with tadpoles. The first dragonfly darts after some luckless gnat that has seen fit to transform so early and a small flock of Tree Swallows comes skimming from the south. Let us wait until the middle of April, however,

before we don our high boots and start through the marsh, for from that time until the first of June the marsh is at its best.

The earliest cat-tails and water dock have now reached the surface of the water and give the first greenness to the marsh. Large ponds mark where the sedges will later appear for they are slower in starting and the winter fires have left not even a brown stalk to show above the water. The marsh resounds with the music of the Red-wings and many strange calls emanate from tangled

places that one is eager to explore. A great liquid call comes from a matted patch of sedges at the edge of the marsh. "Ooble-oob, ooble-oob," like water being poured from a huge jug, these notes being preceded by a tapping sound like striking a stake with a mallet. It is the Bittern and, if we are fortunate, we may be able to stalk him and catch him at his work, though more likely we will almost step on him, so inconspicuous is he in his brown plumage. As the tapping starts again one may see his gulping contortions as first he claps his bill and then makes the motions of swallowing with great difficulty, but he never puts his bill beneath the water as is sometimes stated. As one approaches closer, the strange bird instead of flying immediately, may stretch up his long neck and point his long bill toward the zenith, simulating a broken snag projecting from the water. If he is among the brown sedges, he



AN IMMATURE BITTERN, CONSPICUOUS AGAINST THE WATER BUT VERY PROTECTIVELY MARKED FOR LIFE AMONG THE SEDGES

Photographed by A. A. Allen

will be practically invisible because his neck is striped with brown and buff and resembles the lights and shadows of the dead vegetation. If one tries to circle about him, he slowly rotates so as to present always his striped neck, but finally frightened, he springs clumsily into the air and sails off across the marsh, gradually drawing his head back on his shoulders and trailing his long legs behind after the manner characteristic of all Herons.

As he disappears from sight a splashing in the water may attract one's attention to a spot where the pike are spawning. The dorsal fins of the huge fish can be seen above the surface as, side by side, they swim back and forth scattering their eggs. They came up from the big lake when the ice melted and they will return when their labors are completed. Big fellows they are, some of them weighing ten to fifteen pounds, and if one remains quiet they may swim so close as to show their broad flat snouts, the snaky yellow markings in their dorsal fins, and the small white spots on their sides. Many times in one's journey through the marsh he will be startled by a big splash almost under his feet as he frightens one of these large fish from its hiding place, and he will be able to follow its wake as it zigzags through the flags.

Numerous spherical bunches of frogs' eggs, held up from the bottom on slender reeds or brush, and tangled, yarn-like strings of toads' eggs are everywhere conspicuous, and the jubilant trills of the toads themselves announce that their breeding season is not yet over though many of the frogs have left the marsh. There are many other sounds, almost as incessant, that one may long be at a loss to explain.

From a tangled mat of brown cat-tails comes a peculiar grinding sound as though someone were gritting his teeth. This is followed by a clicking noise much like an old-fashioned sewing machine, and then out of the top of the flags bursts a little brown ball. Floating upward like a tuft of cotton, it breaks into vivacious music and then drops back into hiding to continue its scolding. It is the Long-billed Marsh Wren and if one remains quiet, its inquisitiveness soon gets the better of its timidity and it runs up a reed to get a better view of the intruder, carrying its tail cocked forward over its back in most impish fashion. Again it floats upward, all its feathers fluffed out and its short wings



A LONG-BILLED MARSH WREN AT ITS GLOBULAR NEST

Photographed by A. A. Allen

vibrating so rapidly that they are scarcely noticed. The cause for all this excitement we are not long in discovering, for hung conspicuously among the dead flags is a ball of brown sedge leaves with an opening on one side. Always busy, always mischievous, the little Wren has already completed one nest and will doubtless build several more before his mate arrives, but when she does come, she will spurn them all and start a new one of her own.

As one watches the Wren one may be surprised by a loud call on the far side of the tangle: "Ticket, ticket, ticket, ticket." Perhaps an admission fee is to be charged before one can see further secrets of the marsh. It is one of the notes of the Virginia Rail but it will take some careful stalking before



A PAIR OF VIRGINIA RAILS DISCUSSING THINGS NEAR THEIR NEST

Photographed by A. A. Allen

one sees the slender dark brown bird with a rather long reddish bill sneaking between the cat-tails, its short tail cocked up, like a tiny brown hen's. It is difficult to make the Rail fly unless it is cornered and even then it may dodge back between one's feet rather than trust itself on its rather feeble wings.

A little later one may be startled by loud clucking sounds, and then a terrific "WUP-PUP-PUP-PUP-pup-pup-pup" announces the presence of a Florida Gallinule or 'water chicken,' a bird about the size of a small bantam, slaty black in color except for its red bill and green legs. The bill is set off by a large red plate on the forehead and a greenish tip, while the green legs are trimmed with little red bands like garters. White feathers under the tail and white



A FLORIDA GALLINULE APPROACHING ITS NEST

Photographed by A. A. Allen



A PIED-BILLED GREBE OR "HELL-DIVER" WITH ITS YOUNG AMONG THE RUSHES

Photographed by A. A. Allen

streaks on the flanks usually pass unnoticed, but when the bird is startled, especially with its young, they are made very conspicuous.

Occasionally one may hear a call that begins like the Gallinule's, but ends with almost plaintive cooing. "WUP-PUP-PUP-PUP-pup-pup-pup-caow-caow-caow-caow," it floats across the marsh and it will probably be a long time before one associates the call with the obscure, timid bird we know as the Pied-billed Grebe or 'hell-diver.' It is a little early yet to look for its floating nest and even later, when the bird is incubating, it will be almost impossible to find it, so much does it resemble the small platforms of débris piled up by muskrats, for the mother bird always covers her eggs before leaving the nest so that passing enemies will not discover them.

The Red-winged Blackbirds are scolding everywhere, and one expects to find many of their nests. It is still too early, however, for, although it is a month and a half since the first Redwings were seen, the females that are to nest in this marsh are just arriving and the males are welcoming them. Whenever a female in her streaked coat appears, she is pursued by several males, now close against the water, now high in the air, as though they must display to her their strength of wing. Again, several males may be seen mounting upwards for hundreds of feet, then hovering there on suspended wing like so many Skylarks, finally floating back to the marsh with feathers ruffled and epaulets flaming.

It is too early also to hear the whinny of the Sora Rail or the soft cooing of



A SORA RAIL SNEAKING UP TO ITS NEST

Photographed by A. A. Allen

the Least Bittern that will add their charm in May. Nor do the borders of the marsh yet echo the (witchery) call of the Yellow-throat. But the marsh is a glorious place to be on one of these warm spring days, especially early in the morning or toward dusk when one is almost overwhelmed with the abundance of life. And even during the night the marsh dwellers are far from quiet. The frogs and toads maintain a sonorous accompaniment to the varied calls of the birds. The spasmodic notes from excited Swamp Sparrows and the weird calls from startled Rails and Gallinules mingle with the almost incessant chatter of the Marsh Wrens until long after midnight. Then all is quiet for a few hours, but long before the first signs of dawn the activity begins once more. By four o'clock the Song Sparrows are singing about the border of the marsh and a few minutes later the Swamp Sparrows begin their sweet twitter. The stars are still bright when a Short-eared Owl gives its peculiar call and is dimly seen as it circles near. The Sparrows continue to sing for half an hour before the first Bittern sounds its liquid notes across the marsh. Then the Gulls begin to gabble on the lake, and ten minutes later the Wilson's Snipe begins to bleat and a strange winnowing sound pulsates across the marsh as they perform their aerial evolutions.

It is now three quarters of an hour since the first Sparrow sang, the morning star has sunk below the horizon, and the first signs of dawn have appeared. The Gulls start up the valley for their daily foraging in the fields, and the first Redwing is heard. As though awaiting the signal, hundreds of birds give answer and day is proclaimed. The stars die out and color appears in the east:



A PAIR OF SWAMP SPARROWS AT THEIR NEST IN THE DRIED SEDGES

Photographed by A. A. Allen

the greens and yellows change to rose, and the rose to red. A Great Blue Heron leaves his roost in the woods and starts for his fishing grounds. A pair of Teal swing across the field of vision, dark against the sky. A few restless Grackles start up from the marsh, heading for the uplands, and soon the morning flight of Redwings begins. Scattering over the marsh, they do not leave in the compact flocks that are so characteristic of the evening flight. Single birds, more uneasy than the rest, loose groups of seven or eight, and at times slightly larger flocks fly towards the hills to the east and to the west. By eight o'clock most of the Redwings have left, and two hours later one would scarcely know there had been a Redwing in the marsh. If we have spent the night near the marsh, we are content now to leave, for we have experienced one of the most stirring phenomena that nature has to offer. When thousands of other experiences crowd into our lives and dim our memories, one picture will retain its freshness: it will be spring on the marshes and the awakening of the birds.—A. A. A.

FROM YOUNG OBSERVERS

HARD TO PLEASE

One spring, quite a long while ago, when we lived in the city, a little Wren decided to build in our mail-box. We knew if she stayed there, she would be interrupted too much, and there was a possibility that her nest would be destroyed entirely, so we built another bird house and put it in a shady place not far from the mail-box. Then when the birds were both away, we moved the straws, hair, feathers, etc., from the mail-box to the new home with as much care as possible. To our eyes, the way that we had fixed the nest looked perfect; in fact, I suppose that we thought the job better than the way the bird had done herself.

Presently Mamma Wren returned and after some trouble and fuss she found the new nest. She seemed to eye it contemptuously, as though she could not conceive of anything so badly misplaced as it was.

Finally she got down to business, and with an incessant scolding, straw by straw, she threw them to the porch floor. At last every one was out, and mamma suggested that she was perfectly welcome to our broom if she wished to sweep her new home.

When she had gotten all of the 'furnishings' out, she flew down to the little pile and, one by one, she picked them up and flew back to the new nest and placed them to suit herself.

We were sorry that we had caused her so much extra work, and we told her so. She accepted our apology, after we promised never to touch her precious nest again.—NELL LOUNSBERRY (age 13 years), *Hillcrest, S. Dak.*

[Female Wrens usually treat the nests built by the males in this same way. Evidently they are quite particular.—A. A. A.]

A GOOD DAY FOR DUCKS

On Washington's Birthday, 1922, some friends and I took a hike to the Miami River in hope of adding new species of birds to our year's list. On the way we saw sixteen species.

We had our lunches with us, so when we arrived, we sat in a clump of young willow trees with our eyes fixed on the river. While we were talking, one of the boys looked up and there, right in front of us, floating down the river, was a flock of Scaup Ducks. I think there were seven of them. Then two men came walking on the bank above us and the Ducks flew away. We walked on down the river, seeing flocks of Ducks in the air, but could not identify them. Therefore we went back and crossed over the bridge to the other side.

As we walked down the other shore we saw places where the ground was covered with Duck tracks. We went about half a mile more up the river. Then we sneaked back, hiding behind the willows and crawling on hands and knees. Soon we arrived at a place where we could see all of the Ducks. Yet we were not close enough to tell the species. We moved closer to them and they all flew away.

I now thought of a plan. We went to a place some hundred feet from where the Ducks might return and then tossed up a coin as to which of us should stay. Luckily for me I won the toss.

So I lay there and waited. In some twenty minutes three Ducks flew overhead. There were many Crows in the neighborhood and these and a few Killdeers seemed to try to warn the Ducks of my presence.

After I had waited about ten more minutes, seven Mallards lit on the water in front of me. Soon the water and part of the shore was covered with Mallards, Black Ducks, Pintails, Mergansers and many others which I was not able to identify.

Considering the number of new species I saw, that was the most successful hike I ever took in the winter.—DAVID MARX (age 15 years), *Norwood, Ohio.*



The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by T. GILBERT PEARSON, President

Address all correspondence, and send all remittances, for dues and contributions, to the National Association of Audubon Societies, 1974 Broadway, New York City. Telephone, Columbus 7327

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Any person, club, school or company in sympathy with the objects of this Association may become a member of it, and all are welcome.

Classes of Membership in the National Association of Audubon Societies for the Protection of Wild Birds and Animals:

\$5 annually pays for a Sustaining Membership
\$100 paid at one time constitutes a Life Membership
\$1,000 constitutes a person a Patron
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FORM OF BEQUEST:—I do hereby give and bequeath to the National Association of Audubon Societies for the Protection of Wild Birds and Animals (Incorporated), of the City of New York.

EVILS THAT LURK IN THE BOUNTY SYSTEM

In western Europe it has long been the custom on private game preserves to employ keepers to protect the game-birds and game animals. One of their duties has been to trap, shoot, or otherwise destroy those wild animals and wild birds that prey more or less on the game which the owner is seeking to protect for the purpose of shooting. Wildlife thus destroyed is classed and generally referred to as 'vermin.' Among vermin are included Hawks, Owls, Rooks, and in fact almost any bird that in the judgment of the gamekeeper may be regarded as inimicable to the interests of the game-birds whose well-being he is supposed to look after until the shooting season opens and the hunters arrive.

As just indicated, the gamekeepers often have wide discriminating powers. I was told in England that a gamekeeper was asked why he was engaged in shooting Nightingales. He replied that on account of their singing at night they kept young Pheasants awake. This case is doubtless an imaginary one, but the mere fact that it is regarded as an appropriate story and is constantly told to show the diligence of the gamekeeper, serves to illustrate the extreme measures to which these men frequently go in the discharge of their duties.

The European custom of protecting game birds by means of destroying the so-called vermin has been transplanted to this country and has been generally employed by the managers of private shooting estates. The system has spread to state governments and, especially of recent years, 'bounty laws' have been more and more advocated in the legislatures. Some are in operation today, as, for example, in Virginia where Hawks, Owls, and Crows are killed, and those who destroy such 'vermin' receive a cash reward from the state authorities.

We can understand why the Europeans a century or more ago might have felt disposed to kill all Hawks, and Owls, for scientific investigation had not advanced to the point where the economic value of many of these species was understood. In this country, however, and especially at the present date, there is theoretically much general enlightenment on the subject. Our Government, represented by the Department of Agriculture, has made a careful study of the feeding habits of many birds, and among the publications of the Biological Survey one may find much information showing that there are species of Hawks and Owls that are especially valuable to the agricultural

interests of the country and which rarely if ever prey upon game-birds. The food of some of these Hawks and Owls consists almost entirely of such injurious creatures as grasshoppers, mice, rats, gophers and other plagues of the farmer and fruit-grower.

In North America we have nineteen species of Hawks and twenty-one species of Owls. From the Government reports we learn that those which may be considered destructive to game-birds constitute a small minority. Chiefly among those which the more discerning state authorities exclude from protection are the Sharp-shinned Hawk, Cooper's Hawk, Goshawk, Great Horned Owl, and Snowy Owl. But why should any state in the Union give a bounty for the killing of those species which are of great economic value and whose destructive influence to game-birds is, to say the least, negligible? Why should public money be used to pay men to kill such highly valuable species as for example the Barn Owl, Broad-winged Hawk, Red-shouldered Hawk, Harris' Hawk and Sparrow Hawk? Why should not the American Eagle be protected in all places? This latter species is not an abundant bird today any place within our borders, yet we frequently read in the press that, in such and such a town, gunners have arrived with a Bald Eagle that they killed some place in the surrounding country; that it had a great expanse of wings, etc. So the men and boys pour out into the streets and hold a small Roman holiday over the bloody remains of an American Eagle, the emblem of our national independence!

A bounty exists on Eagles in Alaska and I have recently been advised that bounties have been paid on more than 18,000 of these birds. There is good evidence to show that this Eagle is an extremely abundant species in that territory; in fact it was originally very plentiful along the northwest coast country where they fed extensively on salmon which crowd up the stream every spring in unbelievable numbers, where after laying their eggs and thus having performed their biological functions in life, they die on the spawning ground. The claim that Eagles destroy song birds is generally denied by well-informed people.

In reference to the bounty law in Virginia today, apparently no discrimination is made between the beneficial and 'injurious' species. The good must go with the bad. The tares and wheat alike are plucked up and cast into the oven. Such bounty laws are generally popular among certain classes of the population, especially those who enjoy the sport of going afield with gun and dog. Here and there they see evidences of a Hawk having torn a bird, and therefore feel pleased at the idea that 'Hawks' should be killed. The average hunter, not being a serious student of natural history, does not know the names of the different Hawks or their habits. He does know that he has no use for 'Hawks.' He is like the farmer who went into a side show of a circus and, upon seeing a large snake, immediately attacked it with his heavy walking-cane. The snake's owner remonstrated, stating that he paid more than \$1,000 for the snake. The farmer is reported to have said, "It makes no difference to me. I kills 'em wherever I sees 'em!"

The point of the whole subject I am raising is this. If we have to have bounty systems (of which the Biological Survey states it does not approve) why cannot bounties be confined to species of Hawks and Owls that are proven to be detrimental to the interests of the game breeder, and on the shoulders of the man who desires to kill the Hawk for the bounty let rest the responsibility as to whether he kills useful species? There is plenty of literature describing the different kinds of birds in North America and very little effort is necessary for a man to inform himself as to those that should not be destroyed. The bounty system as carried on today is entirely too loosely managed. If we must have a bounty system on vermin we should have a system intelligently managed.

One of our neighboring provinces in Canada, British Columbia, has a bounty law in operation. Recent comments on this law and the extent of its operations were summed up by a writer of an article that appeared in *The Daily Province*, published in Vancouver, December 8, 1922. The figures as to the actual number of birds in the province may perhaps be exaggerated. Doubtless the method by which these figures were arrived

at was largely guesswork, and it is often said one man's guess is as good as another's, but exception certainly should be taken to the estimates regarding the vast destruction of song birds by these species. The fact that a Crow may rob a bird's nest does not necessarily mean that the parent birds will not rear young that season, for any ornithologist knows that if the average song bird's nest is robbed it will immediately construct another and lay a second setting of eggs. I have known birds to lose four sets of eggs in one season and yet rear as many young as if the first nest had not been disturbed.

The major premise in the last sentence of the article is wrong, for small birds are not becoming extinct in North America. They are on the increase. Following is the article:

Some of the records of the Game Conservation Board afford illuminating information, not only for those interested in sport, but for the ordinary citizen and particularly the farmer. The statistics for the last two years regarding crows, eagles, and owls afford a striking instance of this.

Commencing January 1, 1921, the bonus paid by the Provincial Government on crows was raised to 20 cents, on eagles it was fixed at one dollar, and on owls the same. This made it worth while for sportsmen to go after these birds, at least to a limited extent, and the results have been considerable.

The Game Conservation Board estimates that by the end of the year bonuses will have been paid on 70,000 crows, 9,000 eagles, and 6,000 owls. The bonuses will amount to \$14,000 for crows, \$9,000 for eagles, and \$6,000 for owls, or a total of \$29,000 for 85,000 birds of prey in two years.

One Per Cent Killed

The slaughter of these birds seems tremendous, but an official of the board expressed the opinion that the number killed did not represent more than one per cent of the total. "When you consider," he said, "that comparatively few persons have been shooting, and these principally in the more settled districts, I think one per cent, is a high estimate." And this opinion was supported by several game wardens who happened to be present at the time.

"I feel certain," remarked one of the wardens, "that, so far as the crows are concerned in any event, the estimate is high. It may not be so far out with the eagles, and in fact is probably about right. With the owls it is a somewhat different matter; they are nocturnal in their habits, and it is only

the ones that come out in the daytime that fall victims."

Difficult to Shoot

Mr. R. A. Cumming, an honorary officer of the Department for the Protection of Migratory Birds, expressed the opinion that although the percentage mentioned might be somewhat higher in the more settled districts, it was probably about correct, taking the whole province into consideration.

"I have taken a good deal of interest in the matter, particularly in connection with crows," said he, "and have been responsible for the demise of many myself. In fact I consider myself an expert and fully realize the difficulty in shooting them, particularly after they have become wary from being shot at once or twice."

Taking this estimate as being fairly reliable, it shows an approximate crow population in the province of 7,000,000, of eagles 900,000, and of owls 600,000. To those who have not given the matter much thought these figures seem appalling, but they are probably well within the mark. Really appalling, however, is the probable damage which these millions of crows alone do to the insectivorous and game-birds of the province in course of a year.

Destructive Crows

"There are two distinct varieties of crows," said Mr. Cumming, "the ordinary crow, or inland variety, and the fish crow, which frequents the coast. Of these, the ordinary crows are by far the most destructive. Although some of them are not so bad as others, quite a percentage live almost exclusively on eggs and young birds during the entire breeding season. The fish crows, which pick up most of their living along the shore, are not so bad, but even they spend much of their time bird-nesting. It is away within the mark to figure that, on the average each crow destroys at least ten of the eggs or young of insectivorous birds and one of game-birds during the course of a year. Anyone who has made a study of the subject will bear me out in these estimates."

This very conservative estimate shows, therefore, that in the Province of British Columbia the 7,000,000 crows alone have, during the last two years, accounted for no less than 140,000,000 insectivorous birds which would otherwise have had a fair chance of arriving at maturity; also for a total of 140,000,000 game-birds. The figures seem colossal, but the estimate is regarded by many as ridiculously low. A crow spending almost his entire time bird-nesting for a couple of months, during the breeding season, and living on practically nothing

but eggs and young birds, as many of them do, must account for hundreds instead of merely ten.

Loss of Game-Birds

Of course, of the 14,000,000 game-birds destroyed, by far the larger number consist of grouse, ducks and other wild birds, indigenous to the country, and breeding so far from civilization that they could hardly be considered available for sportsmen at the present time. It is not fair to consider, however, that at least one-seventh of the eggs and young destroyed are those of such birds as pheasants, ducks, grouse, quail and other game-birds, which have their habitat within reach of our sportsmen. The destruction each year of 1,000,000 of these is a serious matter from a financial standpoint alone.

The generally accepted average value of the game-birds is considered by the Game Conservation Board to be about \$5 a brace. Therefore, assuming the figures of the depredations to be correct there is a loss of half a million dollars each year in this item alone, which can be laid at the door of the crows.

So far as game birds are concerned, the destruction done by the owls is probably greater, in proportion to their numbers. A large portion of the food of the great horned owl, during the whole of the year, consists of birds which have reached maturity, many of them parent birds with young. It is quite within the range of probability that they do as much damage to game-birds as the crows. But not to small birds. All owls, however, are not equally destructive, as many species feed on gophers, mice, and other small rodents.

Eagles and Ducks

There appears to be considerable difference of opinion as to the amount of damage done

to birds by eagles. It is sure that an eagle will swoop down on a wounded duck, or other wild bird, and that he occasionally succeeds in capturing an unwounded one, after a lengthy chase. It is interesting to watch him do this. The eagle swoops down on the duck, which dives. By the time the duck comes up the eagle is swooping back, and the duck has to dive again before he gets his breath properly. This game goes on, back and forth, sometimes for half an hour at a stretch, until finally either the duck becomes exhausted and can dive no more, or the eagle gets tired of it and leaves with a disappointed scream.

With the exception of the Golden Eagle of the interior, which is blamed for annexing an occasional lamb, the eagle lives almost entirely upon fish, largely dead ones, and it is decidedly doubtful whether there is any real reason why a bounty should be placed upon them.

Insects Flourish

Great as the loss through the destruction of the game-birds may be, it is in the constant thinning of the ranks of the smaller insectivorous birds that the province suffers most. Farmers can see and appreciate damage done by the crows to their corn and fruit, but it is doubtful if they have any conception of the direct damage they suffer from the insects which the small birds that never reach maturity might have destroyed.

In the Vancouver area, taking in the Delta, approximately 5,000 crows have been destroyed in the past two years. Bearing in mind the one per cent estimate, this means that this district, the most thickly populated in British Columbia, can boast at least a million crows, or two for every man, woman, and child. No wonder the small birds are becoming extinct.

SUMMER BIRD-STUDY

Under a new plan for a summer gathering of students of birds and lovers of Nature, in connection with the National Association of Audubon's Societies' Wild Life Sanctuary and Experimental Game-Farm at Amston, Connecticut, all the facilities of the great Amston tract with its beautiful wild lake and diversified rolling country, secured under a five-year lease, are now made available, with board at moderate rates, within the means of students and teachers.

Herbert K. Job, naturalist and author, of the National Association of Audubon Societies, will be in charge, directing and

demonstrating the preserve and game-farm, taking motion pictures and other photographs of wild bird life, hunting birds and their nests, and conducting field excursions and classes. There will be other visiting naturalists. The new plan will open up a wonderful opportunity for a summer vacation, combined with easy and enjoyable learning along the whole gamut of BIRD-LORE, in all its varied modern aspects.

Upon application to Herbert K. Job, 601 Washington Avenue, West Haven, Conn., or Amston, Conn., during the summer, circulars will be sent and all questions answered.

JUSTICE JOB BARNARD

President of the Audubon Society of the District of Columbia, 1906-1923

By T. S. PALMER

Justice Job Barnard, president of the Audubon Society of the District of Columbia, died at his home in the Falkstone Apartments, Washington, D. C., February 28, 1923, after an attack of influenza. He was in his seventy-ninth year, having been born June 8, 1844, on Maple-Arbor Farm in Porter County, Ind. He was the ninth child of William and Sally Barnard. His early years were spent on the farm and his education was received in the public schools of the county and in the Valparaiso Male and Female College. At the outbreak of the Civil War, notwithstanding the opposition of his father who was a Quaker, he enlisted in Co. K. of the 73d Indiana Volunteer Infantry with which he served throughout the war and in 1865 was mustered out with the rank of sergeant. His service was chiefly in Kentucky and Tennessee with the Army of the Cumberland, and during the last year of the war he was in command of his company after the commissioned officers had been taken prisoner.

Young Barnard had early developed a taste for reading and while in the army he learned shorthand. After the close of the war, he studied law at the University of Michigan and graduated in the class of 1867. In the following autumn he married Florence A. Putnam and settled at Crown Point, Ind., where he practised law until 1873, and served as town clerk, marshal, assessor, and city treasurer. After a few years' residence here he removed to Washington, D. C., and for a time was an assistant clerk in the District Supreme Court. From 1876 to October 1, 1899, he practised law, when he was appointed by President McKinley an Associate Justice of the Supreme Court of the District of Columbia. This office he filled with distinction for nearly fifteen years, until his retirement in June, 1914 at the age of seventy.

Judge Barnard was always deeply interested in birds and wild life in general. He was familiar with the common birds which occur about the National Capital and near

his summer home in Maine, and never tired of observing the habits of those which came under his notice. He was elected an associate of the American Ornithologists' Union in 1886 and president of the District Audubon Society in 1906. Not content with merely presiding at the public meetings, he attended regularly the meetings of the Executive Committee and occasionally the outings and bird classes. He kept in touch with every detail of the local work and at the meetings frequently called attention to the activities of the National Association.

He was a man of broad vision and interests, public spirited, always affable and approachable, and ever ready to aid any worthy movement. At a time when most men lay aside the cares of active life, Judge Barnard, after retirement from the bench, devoted himself more assiduously than ever to civic duties. For some years he was a member of the Board of Education of the District and at the time of his death was president of the board of trustees of Howard University, and of the Washington Society of New Jerusalem, and a member of the Columbia Historical Society and of several patriotic organizations. The esteem in which he was held was shown at his death when the local courts were all adjourned for two days as a mark of respect. At his funeral the six justices of the Supreme Court of the District acted as honorary pallbearers and the church in which the services were held was crowded with personal friends and representatives of organizations to which he belonged, including officers of the Audubon Society and a committee of fifty members of the District Bar Association.

In the twenty-six years of its existence the District Audubon Society has had but two presidents, both distinguished in military and civil life, General George M. Sternberg, a former Surgeon General of the Army who served nine years, and Judge Job Barnard who served seventeen. Both now rest in Arlington National Cemetery, Va., surrounded by thousands of their former comrades in arms.



THE SPIRIT OF THE SEA

From a retouched photograph by E. H. Matern, of Detroit, Mich.

FEDERAL HUNTING LICENSE BILL DEFEATED

On May 2, 1921, there was introduced in the Senate, and in the House of Representatives May 5, 1921, a bill of far-reaching importance, which carried with it the good wishes of those interested in wild life protection in the United States. This soon became known as the 'Public Shooting Grounds-Game Refuge Bill.' The chief provisions were as follows:

First, a license of \$1 was to be required of all who hunted migratory game-birds; second, the funds thus collected were to be used for paying federal wardens to enforce the existing federal laws for the protection of migratory birds, and to purchase game refuges and public shooting grounds.

The measure was drawn by the American Game Protective Association in collaboration with the Biological Survey, and the above-named organization under the leadership of its president, John B. Burnham, supported the bill for a year and nine months. Within the legislative experience of the writer this is the only tax-levying bill of which he has knowledge that has ever been presented to Congress and its passage urged

by the very class of people who would be taxed under its provisions. The sportsmen's organizations of the country were solidly behind it, as was the National Association of Audubon Societies and its general membership.

Shortly before Congress adjourned, viz, on February 13, 1923, the bill was defeated in the House after having passed the Senate on December 6, 1922. The bill failed to pass because of the organized efforts and political activities of Frank W. Mondell, the majority leader in the House. He has consistently opposed conservation measures during his political life. In Colonel Roosevelt's Autobiography, Mondell is referred to as a Congressman who has prevented the conservation of our natural resources, and again Colonel Roosevelt says: "Mr. Mondell and other Congressmen who consistently fought for local and private interests as against the interests of the people as a whole."

There are those in the United States who have not been grieved at the announcement that Mondell's career as a Senator came to an end on March 4, 1923.

CHILDREN ENROLLED AS JUNIOR MEMBERS

The work of organizing Junior Audubon Clubs in the schools of the country is going forward rapidly this season. The attractive material and most unusual offer which the Association is able to make to school children, because of the generosity of our unknown benefactor, is appealing more and more to the principals, teachers, and pupils. Up to March 1, 1923, there had been organized this school year 2,808 Junior Clubs. These

are scattered through every state of the Union and many of the provinces in Canada. The total enrollment of the children who have this year each paid a fee of ten cents and received the button, colored pictures, and literature of the Association, numbered on this date 108,315. Of this enrollment Pennsylvania heads the list of states with 428 Clubs and 17,871 members.

PRIZES FOR POSTERS AND ESSAYS

The American Humane Association again offers its annual series of prizes for the best posters and essays to teach the lesson of humane treatment of children and animals. Different groups of children of all ages, ranging from boys and girls from the first grade up, may compete for cash prizes. The National Association of Audubon Societies is again glad to cooperate with Dr. Stillman,

and has offered prizes for the best essays on the protection of birds. The first prize of \$15, and a second prize of \$10 is open to members of the Camp-Fire Girls, and a second set of prizes of the same amounts is open to the Girl Scouts. Further information in reference to the matter may be secured by addressing Dr. W. O. Stillman, President American Humane Association, Albany, N. Y.

NORTH CAROLINA AGAIN SAYS "NO"

Every time the North Carolina Legislature has met during the past twelve years, the State Audubon Society and its friends have attempted to get a state-wide game law passed. Every such effort has resulted in failure, the trouble being the people in North Carolina have an idea that each county is a sovereign state in itself in so far as bird and game laws are concerned. The custom is for a representative from a county to rise in the legislature, state that he is offering a game bill that his people want, and all the rest vote for it, because, forsooth, nearly every other member is going to have a game bill for his particular county.

The writer remembers that on the statute books of North Carolina there was a law regulating the trapping of Quail in a certain section of Randolph County, bounded by lines in the same phraseology that would

be used in bounding a farm, and in Yadkin County there was a special game law for a man's plantation. State rights, county rights, township rights, plantation rights, and the tale is yet to run!

Last December there was organized in Charlotte an organization of sportsmen under the title of North Carolina Fish and Game Development League. This institution was started by Bailey T. Groome and his associates. The idea was to get the hunting fraternity of the state behind a state game bill. Meetings were held, a bill was drawn, and it was carefully gone over and revised by George A. Lawyer, United States Game Warden connected with the Biological Survey. Then it was introduced and the sportsmen and Audubon Society people of the state gave it every possible support. More people were behind this bill



SCRANTON BIRD CLUB EXHIBIT AT THE SCRANTON (PA.) HEALTH SHOW. FEBRUARY, 1922

than any other state game bill that has been introduced in North Carolina. Then on March 3, 1923, there appeared the following paragraph in *The Charlotte (N. C.) Observer*:

The Wade state-wide game bill for the protection of wild fowl and fur-bearing animals, then got on the floor, and before an explanation could be made by its author, a dozen counties sought exemption, and before

all these had been adopted, Representative Gaston, of Gaston County, moved that the bill be laid upon the table, and the motion carried on a record vote of 52 to 42.

Thus has the Legislature of North Carolina disposed of the most recent attempt of the conservationists of the state to establish an intelligent system of state enforcement of the bird and game laws.

THE NEW BUILDING FUND

As announced in the last issue of BIRD-LORE, the Directors of the National Association decided, after much study of the problem, to present to our members and friends a statement of the great need which exists for a home in which the activities of the Association throughout the country may be directed.

It was not thought wise at this time to undertake an intensive campaign in the form of a drive to raise, within a few weeks, a sum necessary to erect and equip a building of the character needed. To do this would involve the employment of architects to work out plans for a structure and ascertain the probable cost of a building. The character of the architecture would of course be determined in a measure by the situation of the lot on which it was to be erected. As yet we have no lot, and as building costs vary from month to month it would be impossible to determine, except in a general sort of way, what the erection of a building would cost at some future date.

We were recently offered a very attractive building for the sum of \$200,000. The expenditure of an additional fifteen or twenty thousand dollars on alterations would result in making it an admirable home and headquarters for the Audubon Societies of this country. This sum, however, is entirely beyond our present means. It was, therefore, determined to place the needs before the members and ask that as many as might feel so disposed should make some contribution, and it was hoped that the plan might appeal to the membership so that when sending in their annual fees each year they would add something for the Building Fund. In this way a considerable sum might, before

a great while, be collected without any special strain on anyone. Up to the present time this appeal has brought in about \$3,000.

Every dollar of this and additional contributions will be carefully preserved and the accruing interest added to the principal. It is most earnestly hoped that this fund will grow from month to month and that eventually a sum will be accumulated which will serve as a substantial nucleus when the proper time shall have arrived for starting a drive of extensive effort. Those of our members who have been at the headquarters of the Association and who are familiar with the many lines of activity and our growing responsibilities of course realize the great need that exists. Unfortunately for a general, intimate understanding of our needs, many of the members are too widely scattered to come in close, personal contact with headquarters. The Association's best friends have long been those who know most about its work.

Below is given a list of the contributions received during the month of February for the Building Fund:

Contributions to Building Fund to March 1, 1923

A Friend	\$5 00
Albrecht, Henry C.	5 00
Andrews, A. C.	25 00
Andrews, Col. James M.	25 00
Anonymous	15 00
Arnold, Clarence M.	2 00
Avis, Edward	5 00
Baetjen, Mrs. F. H.	5 00
Baker, Miss Esther H.	10 00
Bancroft, Mrs. Wm. P.	10 00
Bartol, Mrs. Henry G.	10 00
Bedell, John J.	5 00
Belknap, Mrs. Wm. R.	5 00
Bemish, Miss Georgia A.	25 00

Bernheim, Dr. Alice R.	\$25 00	Green, Mrs. Bernard R.	\$10 00
Biddle, Mrs. Clement M.	10 00	Green, Master Merrill M.	5 00
Birchall, Miss Katharine	10 00	Gregory, Mrs. Clifford D.	25 00
Boardman, Miss Stella	2 00	Grossmann, Mrs. Edward A.	5 00
Bodine, Miss Margaret L.	5 00	Haile, Henry C.	5 00
Book, C. H.	5 00	Hall, H. B.	5 00
Bradley, Mrs. H. C.	5 00	Hardy, Mr. and Mrs. Richard	25 00
Braine, Miss Elizabeth	10 00	Hart, Mrs. Jay H.	25 00
Breuchaud, Mrs. J.	10 00	Hartwell, J. C.	5 00
Brown, Mrs. J. Stanley	5 00	Hawkes, Miss Eva	10 00
Burrows, Mrs. H. A.	5 00	Heacock, Miss Esther	5 00
Bushnell, Mrs. Albert	25 00	Hills, Mrs. Geo. F.	10 00
Calkins, Mrs. C. H.	10 00	Hinchman, Mrs. L. S.	10 00
Calkins, Miss Emma W.	10 00	Hocking, Geo. H.	10 00
Canandaigua Bird Club (N. Y.)	10 00	Hofer, Miss Elizabeth J.	10 00
Carter, Richard B.	10 00	Hoover, Jos. W.	10 00
Church, C. T.	10 00	Hornor, J. C.	1 00
Clark, George H.	50 00	Howland, Miss Isabel	5 00
Clark, Mrs. Louise	1 00	Hubby, Miss Ellen F.	25 00
Clauder, Rudolph	25 00	Hudnutt, Miss Marcia	3 50
Clift, Mrs. Charles E.	5 00	Iglehart, Mrs. F. N.	5 00
Clothier, Mrs. Mary C.	10 00	Jack, Geo. Whitfield	1 00
Clothier, Mrs. Walter	2 00	Jones, L. C.	1 00
Cole, Miss Ella M.	10 00	Keyes, Mrs. Edward L., Jr.	5 00
Colquhoun, Miss Margaret	5 00	King, Miss Ellen	25 00
Community Bird Club, (Vt.)	5 00	Kneeland, Frances	2 00
Conklin, J. Howell	2 00	Knowlton, Mrs. Myra R.	5 00
Converse, Miss Mary E.	25 00	Lamont, Miss Gertrude	1 00
Cram, Miss L. C.	20 00	Lehmer, Mrs. Irene M.	5 00
Crocker, C. T.	25 00	Lewis, Miss Nina F.	20 00
Cromie, Miss Norma S.	15 00	Lilienthal, Howard	10 00
Curtis, James	20 00	Louis, Charles H.	10 00
Deering, Charles	100 00	Luce, Matthew	5 00
Dennig, L. E.	5 00	Lyon, Charles O.	5 00
Dennis, L.	10 00	Lyon, Mrs. J. A.	2 00
Denslow, T. N., Jr.	5 00	McMurray, William	5 00
Dexter, Miss Mary L.	2 00	Mabie, Clarence	5 00
Draper, Mrs. B. H. Preston	5 00	Marmon, Mrs. Elizabeth C.	100 00
Dunbar, O. E.	10 00	Mayer, Mrs. Rosalynde de L.	10 00
Dwight, Mrs. M. Everett	10 00	Merrill, Mrs. Mary E.	10 00
Edison, Thomas A.	25 00	Merz, Carl	5 00
Edwards, Mrs. Wm. Seymour	25 00	Metcalf, Mrs. L. S.	100 00
Eimer, Miss Mary L.	5 00	Miner, Mrs. Charles A.	5 00
Erdman, Mrs. Henry P.	3 00	Moore, Mrs. Paul	500 00
Evans, Dr. Edward	3 00	Morris, Mrs. J. B.	10 00
Fales, Mrs. Martha E.	25 00	Newberry, Mrs. Wolcott E.	5 00
Faust, Clarence	2 00	Newton, Mrs. Chas. P.	1 00
Fendall, Mrs. Reginald	1 00	Orrman, H. L.	5 00
Field, E. B.	3 00	Osborne, Arthur A.	5 00
Fieldhouse, Mrs. John	10 00	Page, A. B.	10 00
Fisher, Miss Margaret Neilson	5 00	Paine, Rev. Geo. L.	10 00
Fisher, Thomas, Jr.	5 00	Parsons, Mrs. Agnes E.	150 00
Ford, Mrs. Bruce	10 00	Parsons, Mrs. F. A.	1 00
Foulk, Theo.	10 00	Patton, Mrs. Margaret S.	2 00
Fox, Miss Alice M.	25 00	Pennock, Mrs. A. J.	5 00
Fox, Miss Caroline A.	10 00	Pennoyer, Mrs. P. G.	5 00
Fox, Mrs. Mortimer J.	10 00	Phelps, Dryden W.	1 25
Frankel, Mrs. Henry	10 00	Phillips, John C.	25 00
Frankel, N.	25 00	Pirie, Gordon L.	5 00
Fuller, Mr. and Mrs. H. A.	25 00	Pitzman, Julius	5 00
Furness, Miss Caroline E.	5 00	Platt, Mrs. Ellen B.	25 00
Gavitt, Saxon B.	5 00	Pomeroy, Mrs. Katherine	100 00
Gerdes, Mr. and Mrs. A. M.	10 00	Quier, Mrs. Edwin A.	50 00
Goler, Mrs. F. H.	10 00	Reeder, Horace S.	1 00

Rhoades, Miss Henrietta	\$10 00	Stimson, Louis A.	\$5 00
Robbins, Mrs. Geo. S.	5 00	Stokes, Dr. J. W.	5 00
Robinson, Miss Hattie B.	5 00	Stone, Mrs. F. H.	25 00
Rockefeller, William A.	10 00	Strong, Mrs. J. R.	100 00
Rockwood, Mrs. Geo. I.	15 00	Strong, S. B.	5 00
Roemer, John L.	10 00	Taber, Mrs. S. R.	2 00
Ross, Reuben J.	5 00	Thaxter, John	5 00
Rottschaefer, Mrs. Henry	5 00	Thompson, Mrs. D. B.	5 00
Saul, Chas. R.	5 00	Toussaint, Mrs. L. H.	1 00
Sawin, Mrs. Chas. A.	5 00	Tower, Mrs. Kate D.	2 00
Sawyer, Edgar P.	10 00	Tyler, Mrs. E. B.	5 00
Sears, Miss Annie L.	10 00	Vial, Mrs. Geo. M.	25 00
Sears, Miss Mary P.	10 00	Voigtlander, George	5 00
Seaverns, Mrs. Geo. A.	10 00	West, William E.	5 00
Seguin, Mrs. Elsie M.	5 00	White, Mrs. T. H.	1 00
Sharpe, Miss Elizabeth M.	5 00	Whitney, Mrs. Geoffrey G.	10 00
Shedd, Mrs. J. G.	5 00	Williams, Mrs. D. W.	10 00
Short, William	20 00	Williams, Mrs. Geo. R.	10 00
Smith, Miss A. Marguerite	25 00	Willson, Alfred	5 00
Smith, Francis Drexel	10 00	Woodward, Dr. Lemuel F.	10 00
Spencer, Robert L.	15 00	Wyoming Valley (Pa.) Audubon Society	25 00
Steedman, Mrs. C. J.	5 00		
Sterne, A. J.	5 00		
Stewart, Col. Cecil	25 00		
			\$2,926 75

NEW LIFE MEMBERS

Enrolled from January 1, 1923 to March 1, 1923

Barnard, Frederic	King, Mrs. Willard V.
Berrien, Mrs. F. D.	Matthies, B. H.
Burke, Mrs. Stevenson	Mitchell, Mrs. Annie O.
Chalfant, Miss Eleanor McC.	Morris, Mrs. Lewis R.
Childs, S. W.	Nichols, Morton C.
Dallett, Frederic A.	Pfeiffer, Curt G.
Dawes, Miss Emily M.	Rockefeller, Miss Alice M.
Fleischmann, Max C.	Skeel, Mrs. Frank D.
Foster, Mrs. A. C.	Squier, F. C.
Frick, Childs	Stearns, Mrs. F. K.
Harris, Mrs. Anna C.	Welles, F. R.
Harrison, Francis Burton	Wellington, Mrs. C. O.
Hazen, George H.	Whittell, George Jr.
Hurlbut, Miss Margaret C.	Worch, Hugo
Jenness, Charles G.	

NEW SUSTAINING MEMBERS

Enrolled from January 1, 1923 to March 1, 1923

Abbott, Miss Anne	Amos, Charles L.
Acer, J. H. A.	Anderson, Alexander L.
Adams, Mrs. Charles P.	Armstrong, Miss Edith M.
Adams, Mrs. Clark D.	Arrott, Charles F.
Adams, Miss E. Virginia	Arrott, Miss Florence F.
Adams, Mrs. F. A.	Arrott, Robert F.
Adams, Mrs. George B.	Asch, Miss Etta L.
Adams, Dr. Robert A.	Athey, Mrs. C. N.
Agnew, Mrs. M. W.	Bacon, Mr. and Mrs. E. B.
Aldridge, Dr. Belle V.	Bail, Mrs. John Warren
Alexander, Mrs. Mathilde	Ball, Miss Mary Lee
Algen, James W.	Bancroft, Mrs. R. H.
Allen, Mrs. Thomas R.	Banta, Miss Mary
Ames, Miss Olivia	Barnes, C. F.
Ammon, Mrs. Jay R.	Barrell, Dr. Mary E.

- Barrett, Mrs. Wm. F.
Barron, R. E.
Bartels, Miss Hermione J.
Bayard, Mrs. Mary W. C.
Beach, Mrs. T. Belknap
Beal, Miss Ida G.
Beardslee, Mrs. Charles H.
Bearns, Miss Lillia M.
Beebe, Frank H.
Beebe, Mrs. William
Bell, Walter E.
Bell, Mrs. Walter E.
Benedict, Mrs. C. E.
Bergh, Henry
Berwick, Miss Emma L.
Bickford, R. G.
Bigelow, Mrs. Frank L.
Biggar, Dr. Hamilton F.
Bindley, Mrs. Edward H.
Biological Field Club
Blow, Mrs. G. P.
Blumer, Mrs. Wm. E.
Boettger, Mrs. R.
Bole, Mr. and Mrs. Clark
Bonaparte, Mrs. Charles J.
Bowen, James W.
Bowers, Fred W.
Bristol, Mrs. John
Brower, Mrs. A. D.
Brown, Ridgely
Browning, Edward
Browning, Mrs. Edward
Brunker, Mrs. Edith A.
Bryan, Miss Dolores
Bullard, Miss Alice M.
Bunch, Floyd L.
Bunker, Albert
Burdick, Julian
Burgess, Mrs. Edward S.
Burnham, The Misses
Burr, Allston
Burr, Mrs. Allston
Bushnell, Mr. and Mrs. Geo. B.
Buttenheim, Mrs. J. H.
Byers, MacBurney
Carhart, Miss Marion Renee
Carpenter, Miss Emma A.
Catlin, Lyman S.
Chace, Miss Anna H.
Chamberlain, Miss Gertrude
Chamberlain, Louis M.
Chapman, Mrs. John D.
Charles, Miss Emily L.
Chase, Mrs. C. C.
Chase, Miss Edith M.
Chessrown, John P.
Clancy, J. R.
Clark, Mrs. Nathan
Cluett, Robert, Jr.
Coker, J. L.
Connett, E. V., 3d.
Connor, R. M.
Conroy, Mrs. William H.
Cooke, Mrs. Jay, Jr.
Cope, Mrs. Alexis T.
Cope, Mrs. Francis R., Jr.
Cornell, Charles E.
Cortlett, Mrs. Wm. T.
Cowdery, Mrs. W. H.
Cowdin, Mrs. Winthrop
Cranshaw, Mrs. John T.
Crile, Mrs. George W.
Crocker, Mrs. Bigelow
Crocker, Mrs. Chas. L.
Croll, James S.
Croll, Mrs. James S.
Crompton, Miss Cora E.
Cruikshank, Douglas M.
Cruikshank, Mrs. J. H.
Cummings, Miss Margaret
Cunningham, Miss Harriet A.
Currier, Miss Lucy Pettingill
Cushing, Mrs. H. W.
Cutler, Mrs. Charles N.
Dana, Edw. S.
Dana, Mr. and Mrs. Gorham
Danforth, Mrs. E. H.
Daniel, Dr. Annie S.
Davidson, Miss Clara
Davie, Mrs. Preston
Davis, Miss L. Jeanie
Davis, Mrs. Meyer
Davis, Gen. Milton F.
Davis, The Misses
Davison, Joseph K.
Davison, Mrs. Joseph K.
Day, Edward M.
Dayton Audubon Society
Delafield, Mrs. John Ross
Deland, Mrs. Frank S.
Deppé, W. P.
Detmer, Mr. and Mrs. Julian F.
Dexter, Gordon
Dimick, Mrs. Wm. H.
Dodge, A. Douglas
Dohrman, Frank S.
Dominick, Bayard, Jr.
Dominick, Mrs. Bayard
Donoho, Mrs. Ruger
Douglas, Mrs. Walter L.
Downer, Miss Edith M.
Drayton, J. Coleman
Drexler, Miss Elise A.
Driggs, Miss Helen Ives
DuBois, Miss Ethel
Duncan, Mrs. A. Butler
Dunham, Lewis L.
Durant, F. C.
Dutcher, Miss Grace M.
Dutton, E. W.
Dwight, Miss Adelia A.
Dwight, Mrs. M. E.
Eberhart, A. L.
Edson, Stephen
Elkus, Mrs. Abram I.
Ellis, Mrs. Thomas S.
Elsasser, George A., Jr.
Ely, H. Ashley

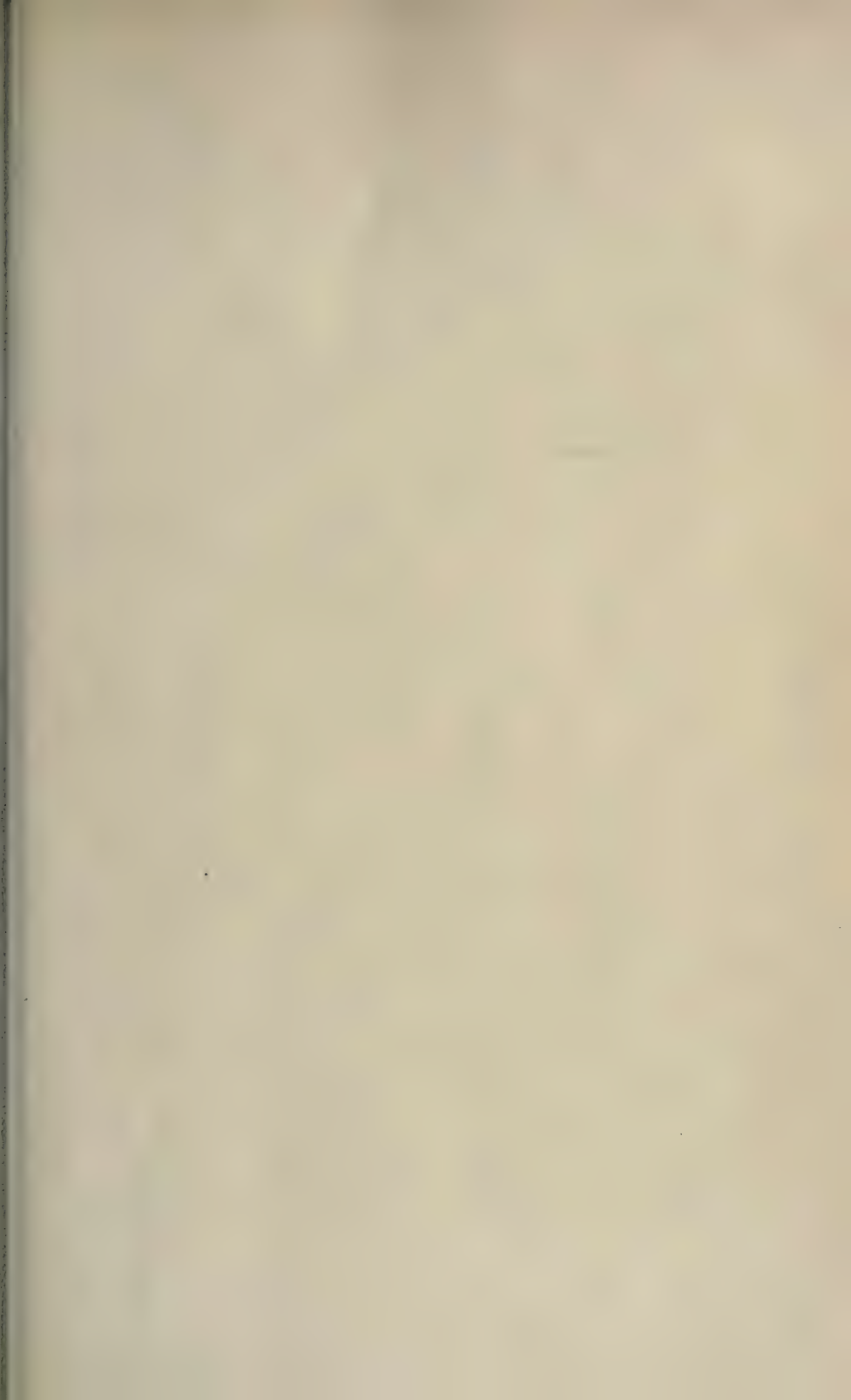
- Emery, Cornell
 Emmons, Robert W., 3rd
 English, Mrs. Frederick W.
 Erwin, J. Harper
 Evans, Dr. Samuel M.
 Evarts, Miss Mary
 Ewing, Miss Mary Valle
 Eyer, George A.
 Fairchild, Mrs. Arthur
 Fennimore, A. R.
 Ferguson, Alfred L.
 Ferguson, William C.
 Field & Stream Pub. Co.
 Fisher, Miss Louise Este
 Fiske, Mrs. Benjamin
 Fleming, Miss Gladys R.
 Flint, P. W.
 Foote, Mrs. Ellsworth T.
 Forbes, W. Cameron
 Ford, Joseph A.
 Ford, Mrs. Joseph A.
 Fowler, Herbert A.
 Fowler, Mrs. Mary Moore
 Fowler, Dr. Russell S.
 Fox, Mrs. William
 Frank, Joseph S.
 Fraser, William A.
 Fretter, Mrs. Frank B.
 Gaensslen, Hugo
 Gage, Mrs. George E.
 Gamble, Dr. Cary B., Jr.
 Gerstenberger, Dr. H. J.
 Gessner, Mrs. David
 Gibbons, Miss Marion B.
 Gibson, Edw. Guest
 Glantzburg, Mrs. Pinkney Estes
 Goddard, Mrs. George A.
 Gordon, Mrs. George B.
 Gowan, Carl C.
 Grab, Mrs. Helen F.
 Gray, Albert Z.
 Greeley, William B.
 Grey, R. C.
 Grey, Miss Zane
 Griggs, Mrs. David C.
 Grow, Mrs. Eugene J.
 Gutterson, John Harris
 Hahnquist, A. J.
 Hale, Mrs. Clara W.
 Hall, Mrs. H. S.
 Hamann, Mrs. Carl A.
 Hardenbergh, Mrs. T. E.
 Hardin, William B.
 Harm, Henry J.
 Harris, Mrs. Charles
 Harris, Miss Jennie W.
 Haserot, Mrs. S. F.
 Haskell, Mrs. Mabel Allen
 Hatch, Henry R., Jr.
 Hatch, Miss Stella T.
 Hawley, John H.
 Hayes, Miss M. A.
 Hays, David S.
 Hazen, Mrs. Maynard
 Heald, Mr. and Mrs. Frank H.
 Hemenway, Miss Mary
 Henderson, E. C.
 Herrman, Mrs. Henry S.
 Herzog, Samuel A.
 Hewlett, Walter Jones
 Heywood, Mr. and Mrs. Geo. F.
 Hicks, Francis F.
 Higginson, F. L., Jr.
 Hildreth, Miss Emily E.
 Hill, Mrs. Thomas W.
 Hodgman, Miss Marie L.
 Holdsworth, Fred
 Holt, George C.
 Hoopes, Miss M. Ella
 Hopper, John J.
 Hotchkiss, Mrs. E. W.
 Huchingson, Miss Ethel
 Hughes, Charles E., Jr.
 Humane Society of Wyandotte Co.
 Hunnewell, Arnold W.
 Hunnewell, Miss Louisa
 Hunter, Miss Gale
 Hurst, Mrs. Albert Edward
 Husted, John G. W.
 Hutchins, Edward W.
 Huyck, Mrs. Emily N.
 Hyde, Courtney
 Hyde, Mrs. F. E.
 Jelliffe, Wm. Raymond
 Jenkins, Alfred W.
 Jenks, Miss Josephine
 Jennings, Robert E.
 Johnson, Charles B.
 Johnson, Mrs. George Clark
 Johnson, Mrs. Merle
 Jones, Col. E. Lester
 Kahle, Mrs. Julie
 Kane, Mrs. DeLancey
 Karelsen, Frank E., Jr.
 Kaufmann, Otto
 Keller, Mr. and Mrs. R. H.
 Keppler, Rudolph
 Kimball, Miss Lulu S.
 King, Miss A. P.
 King, Frederick W.
 Kingsbury, E. H.
 Kipp, S. C., Jr.
 Kirby, Josiah
 Kirk, Miss Beth
 Knapp, Mrs. Bliss
 Knause, Dr. B. Frank
 Korth, Arthur
 Korth, Mrs. Arthur
 Krech, Mrs. S.
 Kuhn, August
 Kuhn, Julius
 Kuhn, Mrs. Walt
 Kunz, Dr. George F.
 Kurzman, Charles C.
 Lacombe, Hon. E. Henry
 Ladenburg, Miss Emily
 Lagai, L. G.
 Lamb, Miss Edith Duncan

Lamb, Miss Rosamond
 Lanier, Mrs. J. F. D.
 Lavelle, Rt. Rev. Mgr. M. J.
 Lawrence, John L.
 Leale, Dr. Charles A.
 Leavenworth, George H.
 LeBlanc, Alfred
 Lee, H. M.
 Lehman, Miss Ruth
 Leland, Mrs. Amory
 Leonard, Mrs. F. E.
 Leonard, Miss Mary F.
 Lilienthal, Philip N., Jr.
 Lincoln, Mrs. Geo. H.
 Lloyd, Mrs. Francis G.
 Loewi, Hugo V.
 Lombard, Miss Annie S.
 Loughran, Dr. Robert L.
 Loveland, George
 Low, Ethelbert I.
 Lowe, Mrs. A. H.
 Lucas, Mrs. George C.
 Lundquist, Miss G.
 Lyall, Mrs. Alexander S.
 Lyman, Ronald T., Jr.
 Lyon, Miss Dorothy Clinton
 Lyon, Miss Sinclair
 McAfee, Miss Mary
 McColm, Mrs. Lillian
 McDougall, Mrs. Walter
 McGee, William H.
 McIntyre, John G.
 McLean, Miss E. L.
 McLean, Marshall
 Maas, Milton A.
 Maginnis, Charles D., Jr.
 Manchester, Percival
 Mann, George W.
 Mann, Mrs. George W.
 Mansfield, Howard
 Marvin, Mrs. L. P. Waldo
 Mather, Mrs. Amasa Stone
 Mead, Mrs. C. W.
 Means, Mrs. O. W.
 Meigs, Mrs. Ferris J.
 Meredith, Geo. S.
 Merkel, Miss Margaret
 Merle-Smith, Mrs. Van S.
 Merriam, Mrs. A. Ware
 Merrill, Mrs. Payson
 Metcalf, Mrs. Stephen O.
 Metz, W. F.
 Milburn, Mrs. Devereux
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 Wells, Miss Elizabeth
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 Young, Percy L.
 Zinsser, August







1. LOUISIANA HERON.

2. YELLOW-CROWNED NIGHT HERON
(Adult).

3. YELLOW-CROWNED NIGHT HERON
(Immature).

4. BLACK-CROWNED NIGHT HERON
(Adult).

5. BLACK-CROWNED NIGHT HERON (Immature).

Bird-Lore

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The Common Loon

By ROBERT J. SIM, Harrisburg, Pa.

Photographs from life and a drawing by the Author

THIS paper is the result of two summers' field-work, and because a detail apparently trivial sometimes points the way toward things of larger significance, no item shall be omitted. In June of 1922, Mrs. Sim and I went into the woods of Maine, hoping there to learn some of the secrets which have, for us, shrouded the home life of the Great Northern Diver. My six weeks' study in the Adirondacks during the summer of 1920 had left much to be learned. For the sake of proper sequence in life-history, the observations made in Maine should be recorded first.

An irregular body of water 8 miles long and 4 miles wide, set among the wooded hills not far inland from the Atlantic Coast—such is Lake Meddybemps, in Washington County, Maine. No one has told how many coves, bays, and capes form the shore-line, but there are said to be fifty-two islands. Judge, then, of our difficult problem—to find the nest of a pair of Loons. There were, I think, three pairs on this lake.

Late in June we started the search. Following the boulder-bound shores and exploring the islands soon revealed the fact that there were hundreds of "likely places" from which *Gavia immer* and his mate might have chosen. In the course of much rowing and scrambling, two nests were discovered, each on wet ground within a yard or so of the water-line of a small wooded island. But these contained only broken eggshells from which, evidently, no birds had been hatched. Several more days of strenuous hunting had passed when, rowing by an island not yet examined, we flushed a Loon from the shrubby shore. A few minutes later photographs of the nest were being taken, while the bird remained a few rods off shore giving the mate-call. The nest was merely a damp mass of blackish muck and dead weed-stems at the water's edge in a tiny bay overarched with low bushes. Wild roses and black alder, then in bloom, afforded scant shade for the sitting bird part of the time. The island, perhaps 2 acres in extent, had a dense growth of spruce and fir weirdly draped with usnea. Under these trees grew a supply of American yew and the marginal

fringe of deciduous bushes. Sprays of the yew were excellent material for our blind—from which subsequent observations and photographs were made. At first the blind was built about 10 feet back of the nest, but later it was moved 3 to 4 feet closer.

We always entered the blind by way of a trail cut through from our landing-place on the opposite side of the island, but very seldom did we succeed in getting fixed without alarming the watchful bird on the nest. The ground



"LABORIOUSLY WADDLING UP THE LITTLE INCLINE"

vibrations, the noise of setting the camera shutter, or, perhaps, even the sound of heavy breathing caused by our crawling the final 50 feet—at any rate, something nearly always caused the sitting Loon to lunge into the water and go flopping out into the open. Then followed an anxious wait of fifteen minutes or an hour. Silently the old bird swam back into our cove. Once or twice she patrolled back and forth a few yards out from the tiny bay where the nest was, then she pushed in between protruding boulders, came directly to the nest,

and, raising herself to a semi-erect attitude, laboriously waddled up the little incline. The watchers, scarcely daring to move or breathe, saw the unvarying routine of the mother Loon, arranging and settling down upon her two eggs. Never once did we see her stretch her neck up to look about while standing. Always her mind was intent upon the eggs, and the neck was arched and bent downward as shown in the illustration. While the bird was climbing up the sloping side of the nest—a walking distance of less than 2 feet for her—she never was seen to use her wings to assist in balancing: they were, as in the swimming position, neatly covered by the feathers of the side.

To arrange the eggs properly, the Loon stands nearly upright on one side of the nest. The wings are disengaged from the side feathers and droop, with wrists held well out from the body. Then the bird reaches out, with bill open and head turned sidewise, and rolls one egg away back between her feet, resting the while upon her toes, tarsi, heels, tail, and wing-tips. Now the second egg is rolled towards the bird till it lies parallel with the first and about 2 inches from it. (If the reader will try to roll an egg over a rough surface by poking it along with the point of a pair of shears, he will soon find that if the shears are held open an inch or so, and the two points used in contact with the egg, he can guide its course much more effectively. We never saw the Loon *with bill closed* trying to arrange her eggs.) Now, our bird usually dropped to rest for a moment, lying in a horizontal position *across* the eggs. Soon she rises, turns a fourth of the way around, and drops down again so that she lies facing the water and with the eggs fairly well astern, in line with her body. I am inclined to think that each egg has a foot over it, for on one occasion Mrs. Sim saw the bird—just before settling—wrap one large membraned foot over an egg as though intending to shove it along a little. (All I could ever see was a much-reduced image on the ground glass of the Graflex.) There seems to be no bare spot on the underneath of a Loon. May it not be that the bird's blood flowing through the tiny vessels of the interdigital membranes furnishes some of the warmth for incubation?

From our notes: "While sitting on her eggs the old bird never shows signs of napping. She sits facing outward, always with head up and turning from side to side, keeping a sharp watch in all directions. At the slightest alarm she pushes off—without rising. About two kicks put her into the water."

To anyone who is familiar with mounted birds only, it would be impossible adequately to describe the beauty and unusualness of what we saw from our blind. There, only 8 to 10 feet from us, was one of the wariest and most beautifully marked of our great water-fowl. The sunlight flashed in a keen, bright red eye and gleamed on the satiny green plumage of the neck. Raised white lines and perfectly arranged white spots furnished snappy accents on the black of the bird. All this beneath a bower of wild roses and against a background of reflected blue. From the depths of the spruces over us came the incomparable song of an Olive-back and the sibilant notes of a Parula. Sometimes a dainty



LOON APPROACHING NEST

From a painting by R. J. Sim

Water-Thrush came within arm's length to peer through the peep-holes of our blind, or a brood of half-grown Black Ducks scuttled across the field of vision. Gold-banded bumblebees—rather too close for our peace of mind—kicked loose the rose petals which came drifting down over Loon, camera, and observer. The only seriously disturbing element was the possibility of a sudden wind to bother us in that 3-mile pull back to camp.

Sometimes, when frightened from the nest, the Loon seemed unusually suspicious about returning to it. Then, Mrs. Sim would go back to the boat, push off, and row away among the neighboring islands and coves. This seemed reassuring, and the bird would come back to the nest right soon. Always when frightened away she uttered that mellow, long-drawn *Ah-loo'-a-la*. This cry soon won the name of mate-call, for directly after it was heard the other Loon would come flying from away up the lake to join his mate in the offspring.

Visits to the nest island had to conform to the weather conditions and various things. By the time we had taken about twenty photographs, our schedule indicated a trip for sea-birds along the coast; so the studies at Meddybemps came to a close.

I skip back two years to a six-weeks' camp on Cranberry Lake in the western edge of the Adirondacks. This lake, too, is decidedly amœboid in outline, but with the difference that the outreaching pseudopodia—the bays and "flows"—are choked with tangles of old logs, uprooted stumps, and standing stubs.

It was too late for occupied nests that year, and the downy young Loons, seen by others only a few days before my arrival, had disappeared from the open waters of the lake. I found the adult birds plentiful and vociferous. But what had become of the young? No one knew.

One evening after a long day's work on insects, a short stroll through the underbrush near camp brought me to the edge of a well-protected and very snaggy cove. Indian Mountain loomed in the distance; against this, the darks of great hemlocks on that almost-island called the Pig's Ear. Directly before me lay the quiet cove with its deep marginal barrier of old logs and stubs. And then, out in the central patch of open water, two young Loons were bobbing over tiny waves. After that discovery, every Sunday and many evenings were spent in various hiding-places about the Pig's Ear. My Loon family, more or less complete, was always present. The young grew rapidly day by day, and the opportunities for observation were satisfactory in every respect.

This, too, was a picturesque spot. The older floating logs were, above water-line, bearded with moss and brightly suffused with red—the leaves of two *Drosera* species and a small *Hypericum*. The red of these repeated exactly the color of the Loon's eyes. This fact, vividly remembered, is mentioned for artistic effect rather than for its biological significance!

The two downy, brownish youngsters, nearly half-grown, apparently never ventured outside their cove nursery. They alternately dived for food and dozed on the surface, revolving in smallish circles and sometimes drifting with the

breeze till awakened by being bumped against a snag or by the coming of one or both old birds. Sometimes one of the parents swam boldly in through the channel, carrying a small fish in its bill. At other times arrival was effected by the submarine method—the big bird appearing, sudden as a ghost, in the middle of the open space. Often all three or four birds spent some time diving for food among the snags. A vegetable diet was not spurned. According to the entry of July 5, "The two young birds dabbled around pulling up a species of submerged water plant (*Utricularia*?) and gulping down shreds of it. The old bird repeatedly dived for food, and, for a while, brought up fishes 3 to 4 inches long; then for a time gathered the water plant, making short dives and coming up with long strings of it." At such times the young birds crowded up close to snatch the food from their parent's bill. Occasionally one of them gave a high little whining call. With an 8-power glass I had no difficulty in making



LOON ARRANGING ITS EGGS

observations, for at times the Loons were not more than 40 feet from the large rock behind which I was hidden.

When I came in a rowboat, entering through the channel past the Pig's Ear, one of the old Loons usually swam out to meet me. Then the well-known laughing cry was heard at close quarters and its rich pleasing quality appreciated. This note, like *O-ha-ha-ha-ho!* seems to be usually an alarm-cry, and is the one most frequently heard when a boat passes near the birds. One night, while some of the canoes were returning to camp, two Loons gave this tremulous call seventy times. The voice of one was considerably higher than that of the other. A company of six to eight excited birds can make an amazing clamor. Often this same cry is uttered while the bird is flying high overhead on his way from one part of the lake to another. During its utterance the bill is well open and the lower mandible vibrates with each syllable. When great anxiety is felt, the mate-call, previously described, is reduced to a single long wail—a sort of moan—given with the bill closed. All three of the notes thus far mentioned are very beautiful when heard close at hand: none is at all shrill, rasping, or guttural, but all have remarkable carrying quality. What seems to be the most ambitious vocal effort of the Loon—its love-song, perhaps—is, to human ears, entirely grotesque. We called it the 'silly song.' The general form of the song is represented by these syllables, *Oh-a-lee!* *Cle'o-pe"-a-rit'*, *cle'o-pe"-a-rit'*, *cle'o-per-wer-wer!* The head is thrust far forward, with bill open wide for the first part; for the rest, the head is in the same position but the bill is nearly closed. The *Oh* begins quite low and rises, long drawn out. The rest of the song begins with some snap, but dies away in an inarticulate murmur. On a quiet evening this peculiar sound comes echoing across the water for the distance of a mile or more, and of all the bird-notes known to me it seems the most nearly insane.

I think that my pair of Loons had nested on a tiny island—a single bulge of rock—just off the inlet to the cove described above. This islet supports a single small pine, a fringe of leatherleaf (*Chamadaphne*) and a mat of whitish lichens (*Cladonia rangiferina* and *C. alpestris*). An old nest was found among the shrubs of leatherleaf just above the storm-wave level. I believe that, soon after hatching, every young Loon on the lake is conducted by the old birds to some weedy or snaggy cove or flow. This would account for the disappearance of the young birds during the summer. In such places they would be well concealed, away from the reach of storms, and located in waters offering the greatest variety of easily found foods.

Not infrequently one of the big Loons took a nap with the little ones. When preparing for sleep, either young or old bird rolls over on one side till the white belly shows above water, waves the exposed foot in the air and finally, with a quick flip, tucks it away under the side feathers and wing. This leaves one foot in the water, and, by giving an occasional kick, the bird usually keeps from drifting with wind or current. Meanwhile, the head is twisted around



THE BILL IS ALWAYS PARTLY OPENED WHEN USED TO ARRANGE THE EGGS

and the bill tucked in between the scapulars and back-feathers. I never saw any of these birds rest on land, rock, or log.

While swimming or just resting, the Loon usually lies fairly deep in the water. The tail is submerged and the heel shows slightly if at all. But occasionally the bird floats high, with tail up, part of the whitish crissum showing and a portion of the tarsus visible. One thing not often seen in drawings is the characteristic little crest or bulge of feathers on the forehead.

The feeding habits are especially interesting. Food was sought any hour of the day, out in deep, open water, along the margins of islands, or in small bays and flows. Frequently the birds hunted singly or in pairs, but sometimes eight to ten were seen working, apparently with mutual understanding and concerted effort. One, a little apart from the rest, would run some distance over the water, beating it with his wings and making a great commotion. His companions, meanwhile, thrust their heads into the water, seemingly to watch for any prey that might have been startled from cover in the depths below.

Then the diving would begin. This whole performance of excellent team-work might be repeated several times, but presumably the catch is disposed of under water, for at no time did I see a bird bring anything to the surface, excepting, of course, when the young were being cared for. Sometimes I watched my Pig's Ear Loons hunting together. Always, one bird watched with eyes submerged while the other stirred up a rumpus on the surface. Let no one tell me that a Loon is lacking in resourcefulness!

The ordinary traveling flight of this big diver is too well known to require special mention, but several times I witnessed a peculiar aërial stunt indulged in by a pair. Flying close, side by side, each set his wings in a broad V above his back and sailed round a large curve—about a hundred feet across. The outside bird, likely the male, always assumed a stiff attitude, with his bill pointing slightly upward and slightly towards his mate. This position, held, of course, for only a few seconds, caused the bird's throat to round out, giving his head the appearance of being upside down.

Last summer Mrs. Sim and I went into the Maine woods confident of great success. We came out with the conviction that *Gavia immer* still holds the controlling interest in the mysteries of Loon life.

To a Caged Mockingbird

I heard a sad voice warbling litanies;
I traced its silvery sound,
And there, within an old and battered cage,
A lonely bird I found.

A slender grayish form with white-barred wings,
Whose kindred can be heard
Far in the Southland on a dreaming night.
A richly cadenced bird!

He hung just out a window on a street,
In city's grime and dust,
Wholly dependent on a careless hand
For water and a crust.

I wonder. Can there be a longing, there
Within that feathered breast,
For happy days of freedom and of flight;
Perhaps a hidden nest?

Poor bird! What fate decreed that you should live
Behind those dingy bars;

When you were born for fields and orange groves

Beneath the ageless stars.

—CLARA JAEGER BILLINGS

Stories from Birdcraft Sanctuary

By MABEL OSGOOD WRIGHT

IV. DUCKS AND DRAKES

With photographs by Wilbur F. Smith

THE 19th of February, 1923. A morning of intense, still cold. A half-hour after sunrise the mercury was crawling slowly up from zero. The birds that roosted nightly in the hillside pines began to come out in search of food. The Purple Finches to the number of thirty, a third being the warm-hued males, scattered wherever they saw a supply of sunflower seeds, the bait that keeps them at Birdcraft all winter. A group of the most pugnacious held a point of vantage on a high-set tray. Half a dozen White-winged Crossbills followed the Finches, managing the large, sweet sunflower seeds with the same tweak of their bills as they use in scaling cones.

Juncos and Tree Sparrows, roosting in the vines about and under the eaves of the bungalow, came to the more intimate window-shelf where chick-feed better suited these smaller bills. An occasional Jay shrilled its call and some Crows answered, but the crunching of the dry snow underfoot, as the warden made his morning rounds, was the most insistent sound. His first call on his patrol is to visit the Wood Ducks, see that their water-hole is open, and that the ground feeding-place for all wild-fowl is well supplied—whole corn, cracked corn, and scratch-feed being a ration that serves Wood Duck,



PURPLE FINCHES AT A 'BIRDCRAFT' LUNCHEON

wild Mallards, Pheasants, and Quail alike. A warm spring hole that never freezes over, set back a way from the pond, quenches the thirst of all the winter birds, great and small, and tempts very early bathers.

It is about the wild Mallards and of their first coming and going—that is the peg upon which this story hangs.

It was in January, three years ago, that these Mallards were first seen flying above the frozen pond with the clipper-like dash of really wild Ducks, knowing by instinct that, while larger ponds and water-courses were frozen, here was a little spot of open water.

There were four in the party, three ducks and a drake. Every night before sundown they came in, but went away in the morning. As spring advanced their tactics changed, and we felt sure that the ducks were nesting, though we could not locate the nests themselves. The drake came and went, but the ducks stayed alone. In late April, empty shells at different places in the brush told that the young had hatched. One duck surrounded by a small fleet of ducklings was seen on the pond, but they vanished at the faintest attempt to approach them and soon not a trace of old or young could be found.

In the autumn of 1920, well before leaf-fall, either the same quartet or one of like habit returned each night to the pond, leaving again after sunrise.

The second season, 1921, the warden determined to watch the three ducks more closely. Again broken shells, the last week in April, determined the number of ducklings hatched, this being one, seven, and nine respectively.

The single duckling was never seen; the other two broods at once took to the pond and quickly learned the art of hiding. By great patience the warden found that at the snapping of a twig even, the broods would separate, some going under the overhanging bank and others diving among the young water-lily leaves, there nesting with outstretched necks among them, looking much like the plants when in bud.

When less than a week old, the mother and the second brood of seven disappeared. Why, the warden could not guess, for food then was in plenty, the natural pond supply being supplemented by grain. Two days later the last brood was suddenly missing. An hour later a boy came running in to tell the warden that a duck with a brood of young had come across a field from the direction of the Sanctuary and was going up the railroad track, headed east! The warden quickly followed the trail.

Two years before this time, the owner of a poultry farm, less than a mile away, obtained a setting of wild Mallard eggs which were hatched by a domestic duck. After various vicissitudes three ducks and a drake survived. In the middle of the winter the group disappeared at intervals but always returned. In April, however, they left apparently for good and all. In early May, to the astonishment of the poultry keeper, one morning he found one of his lost ducks and her brood feeding quietly with the barnyard ducks, as if she had never left the place. A few days later the second duck appeared at

midday, followed shortly by our warden. Then the two men compared notes and drew conclusions, but there were several queries to which we have no answer.

At maturity and the approach of the breeding season, was it the call to the wild and its seclusion that sent the Mallards out from the duck-yard?

In the yard they had been perfectly tame, but in the fenced and really wild Sanctuary they at once became wild birds again. Having nested, did the homing instinct hold sway so that the ducks led their broods back to where they themselves had been hatched *and at once became fearless barnyard ducks again?* Can anyone explain this sudden and complete transition?

Last year (1922) more Mallards came, there sometimes being eight to ten on the pond. Each nightfall they came circling down with much calling and



MALLARD'S NEST AT 'BIRDCRAFT,' MAY, 1922

fussing. Several broods were raised and one large setting of eggs, here pictured, was stolen just prior to hatching and so lost, but there was no repetition of the return to the barnyard. All the ducks remained truly wild, and it was necessary for me to sit close and watch well in order to get even a glimpse of them swimming and feeding. The warden, however, never alarmed the adults when he brought food, so that he could throw the corn in the pond and watch them bob for it to his heart's content. Before late fall as many as eighteen Mallards were counted and many migrant Black Ducks came to the warm spring at evening.

In early summer (1922) the State Game Farm gave Birdcraft Sanctuary a pair of adult Wood Ducks that were pinioned and a pair of young of the year. We then enclosed a part of one of the little islands and a good bit of water with 5-foot poultry wire and waited results. Hollow trees were provided so that the old birds might become used to them before the nesting-time of 1923, and a small two-story house for winter quarters was set in a protected spot.

In a very short time the Wood Ducks were receiving visitors, and why not? The submerged food-table was fine and so was the swimming. Every prospect was pleasing and—there was no disturbing mankind! When autumn advanced as many as nine Wood Duck visitors were counted, mingling happily with the Mallards, and this on a small pond set in a plot of only 10 acres, next door to the high school, and within a slow five-minutes' walk from the center of a large country town.

Birdcraft Sanctuary also had a very unusual Duck guest last July, though it did not come of its own free will. This was an Old Squaw. Injured wings had kept it from either 'towering' with its fellows or going with them to the breeding-grounds as far north as Greenland. A fisherman who had found it floating about half starved, tried to keep it in a cage from which it was rescued by our county game warden.

It was a moot question as to whether a sea duck would live in a small fresh-water pond, but it was its only chance as it was too lame in the wings to care for itself in the open. For a few days it paddled about and dived somewhat disconsolately in the mud, but did not touch the grain eaten by the Mallards and Wood Ducks.

The warden dropped whole corn in the water in front of the Old Squaw, who was poking about aimlessly—the kernels were soon discovered and the food question settled. Gradually Nature mended the injured wings and our guest was ready to join the winter flocks of his clan on their return to the still waters of the Sound out from Fairfield Beach.

The pinioned Wood Ducks have kept healthy and seemingly happy, in spite of the long, cold winter, chumming with the Pheasants, that, perhaps, wishing company, fly into their special preserve.

The young Wood Ducks, with many visitors, stayed on the pond until December 9 (a day later than the accepted winter record for Connecticut), and we shall soon be watching for their return. For when they come—Bob-white will be telling his name, the Wood Ducks will be probing their special muddy spring on the wood edge, and any May evening give us their 'sky dance' that celebrates the real coming of spring in the game-bird world.

Spring Visitors to a Pasadena Garden

By ADA WILSON, Pasadena, Calif.

THE spring migration of 1922, as seen within the limits of my own small garden (90 by 202 feet, to be exact), was of unusual interest, both in regard to the large number of bird-visitors that have come for a more or less brief stay, and also to some few individuals who have never before, to my knowledge, set foot within its borders.

The chief attractions of the place, from the viewpoint of the bird, are fruit trees and rose bushes aplenty, some small shrubbery, bird-baths, and a free-lunch counter, and protection as far as in us lies, and many a passing traveler has availed himself of these privileges.

The first bird to bring us news of the mysterious spring movement that was beginning in the great bird-world was a San Diego Red-winged Blackbird, an incongruous sight in a foothill garden, with no swamps or tule-patches within several miles. He came with our daily visitors, the Brewer's Blackbirds, one gray morning in February, to within a few feet of the porch, gave his call once or twice, showed his red epaulettes and was off.

In February, the Cedar Waxwings begin to make daily visits to the garden. While these birds are common all winter in certain localities about us, they are seen in our immediate vicinity only in the late winter and spring.

It seemed as if spring had really come when, one bright morning in early March, the proverbial "three Crows" flew over, flapping their black wings and cawing loudly to each other.

A few days later, a Western House Wren appeared in the brush-pile, and, for several days we caught occasional glimpses of his tiny form bobbing quickly about among the bushes. A Pacific Yellow-throat—our first Warbler of the season—next made a hurried journey through the garden, and the two Orioles—Arizona Hooded and Bullock's—followed, both on the same day.

The last day of March brought two Lutescent Warblers. From now on, life became exciting. It was a common occurrence to be awakened in the gray dawn by an unfamiliar bird-call, and occasionally to hear a new song added to the familiar morning chorus of Mockingbirds, Linnets, and Song Sparrows. It was a time of year when each new day brings with it that fever of expectation which every true bird-lover must feel, not knowing what new denizen of the air may "swim into his ken." Almost every day, from now on, my notes have something of interest to record. Sometimes it was a few Buzzards sailing overhead in the great blue, and again it was a flock of Bush-tits flitting from tree to tree, a Mourning Dove cooing plaintively on the wire, or a pair of Valley Quail feeding in the garden.

Western Gnatcatchers were very numerous, coming singly or in pairs. One chilly April day, they were cavorting about the place from early morning till dusk, looking wonderfully bright and jaunty in their suits of bluish gray.

A Cassin's Vireo was seen in the garden for the first time in early May, and a little later a Least Vireo fed about in the rose bushes. A gorgeous flash of color in the orange tree below my window, one morning, resolved itself into a Western Tanager. Phainopeplas made us brief visits as they went back and forth to my neighbor's mulberry tree, and our familiar Black-headed Grosbeak came back to his old stand on the incinerator by the feeding-ground.

Late in April, the Russet-backed Thrush came shyly to the garden. This time he was silent, unlike last year, when he delighted us again and again with his low, hushed song.

Early one cold bright morning I was awakened by the sound of hurried wings passing my window. It was a little company of Cliff Swallows gurgling hilariously as they dashed through the air "on pleasure bent," if one could judge from appearances. They had an eye to business, however, as several pairs stopped to investigate the eaves of my neighbor's cement house, with a view to possible nesting-sites. But time was pressing, and they did not tarry long.

Nine different species of Warbler have visited us during the spring, this number including an Audubon's Warbler that came to the garden on April 17, in company with other Warblers and, therefore, though one of our winter residents, I list him with the migrants, which he undoubtedly was. The other species were Calaveras, Orange-crowned, Lutescent, Yellow, Black-throated Gray, Macgillivray's, Pacific Yellow-throat, and Pileolated. The Orange-crowned was our gem Warbler of the season. Seen on a misty morning as he was feeding on a rose bush, his orange-red crown stood out distinctly. A Lutescent, which he closely resembles, was so accommodating as to come along just at that time and the two Warblers could be compared, and their slight differences as to size and color noted.

Flycatchers were represented by five species: Ash-throated, an occasional Black Phoebe (a resident hereabouts), Western Wood Pewee, Western and Traill's Flycatcher.

Hummingbirds were not as numerous this spring as usual. In former years, the orange-blossoms have graciously opened their waxen petals in time to welcome the tiny travelers, and allow them to revel and feast on their sweetness. But, alas! this spring, the tightly-closed buds, deprived of their usual sunshine, refused to open. A Rufous Hummer spent some time, one day, investigating, and trying to force the hidden treasure of an orange tree below my window, but in vain. Peach blossoms were available, but apparently were not as popular as those of the citrus trees. However, we did see the usual number of species of Hummingbird, but comparatively few individuals. The species we saw were the Rufous, Costa's, Black-chinned, our own familiar Anna's, and the Calliope. This latter I name in awed tones, for heretofore, Calliope had been a stranger to us. But he was so tiny, and the odd, white streaks on his gorget so striking, they could have belonged to no other.

The most wonderful day the garden ever experienced in its existence was April 29. Beginning at about 8 o'clock in the morning, the trees and bushes suddenly became alive with numerous small travelers of the feathered tribe, of various size and color. The procession lasted, in greater or less numbers, throughout the morning—by afternoon, only a few stragglers remained. It was a memorable day to those within the house. Hurried, excited visits were made from one window to another, and something worth looking at was always to be found. Our list for the day showed a record of 22 birds, this number including our own faithful adherents, Mockingbirds, Linnets, etc. The list of visitors comprised five species of Warbler, the Ash-throated, Western and Traill's Flycatchers, Warbling Vireo, one singing, a Barn Swallow flying over, a Western Tanager, a Bullock's Oriole, and a pair of Lazuli Buntings. The Lazuli Buntings stayed about the place for several days to our delight and one morning two males regaled my ears with their delightful song.

Besides the Calliope Hummer and the Orange-crowned Warbler I have mentioned, one or two other stragglers of especial interest from the bird-world found their way to the garden this spring. One was a Flicker, observed one day at the bird-bath, the red band on the back of his neck and his black moustaches proclaiming his identity. Like many another passer-by, his visit was all too brief.

One of our pleasantest experiences was on an April day, when a Black-chinned Sparrow was our guest. When first seen, he was sitting on the telephone wire, preening himself, evidently after a bath. After this performance, he flew to a pear tree and flitted about for some time, giving his simple trill at intervals and turning about from side to side, thus affording us ample opportunity to see his gray head with its black faces and light bill, and his reddish back and wings. We had seen this little wanderer from the desert places, heretofore, only in his natural setting of sage-brush and cactus, and his presence in such conventional surroundings was altogether a surprise.

And now, the spring of 1922 is over and gone—the garden has quieted down to its normal, everyday state, but we shall always hold in happy memory the little travelers that stopped to 'break bread' with us as it were, and wish them joy and safety in all their future endeavors.

Notes from Field and Study

Song-Bird Week in Manchester, N. H.

The week of May 21 to 27, 1922, was celebrated by the Manchester Bird Club as 'Song-Bird Week.' At this time the migration of the song-birds was at its height, and the bird-talks given before the Club members during the previous winter had brought about a very considerable renewed interest in the songsters.

The mayor of the city and the superintendent of schools entered into the spirit of the idea. Mayor Trudel issued a proclamation pronouncing the week as 'Song-Bird Week,' which very materially assisted in starting the movement. Superintendent Taylor wrote a letter which caused added enthusiasm among the school children. On the Sunday which began the week, several of the pastors of the churches made mention in their sermons of the song-birds. Thus the week became a real week for study of the songsters. The members of the Manchester Bird Club took hold of the work vigorously so that it went forward with much impetus.

In all grades of the public schools, the individual teachers were permitted by the principals to take their children on a walk to study and observe the habits of the birds each afternoon after school hours. This proved to be one of the most striking features of the work. The teachers took their classes out into the surrounding fields about the city and instructed them in the ways of song-birds, in nest-building, in how to recognize any special bird and their individual habits. This added many names to the roster of the Junior membership, while the pupils learned much about the birds and were awakened to renewed interest in the importance of protecting our song-birds.

The Manchester Bird Club offered prizes in the form of bird books to the pupils of the public schools. In one instance a prize was offered for the display of home-built bird-houses, and the pupil submitting the bird-house that seemed most practical in every

way to the judge received a bird book. A prize was also offered to the pupil presenting the best essay of a thousand words on our song-birds. One special part of the program for the school children was an afternoon meeting at which Arthur Edward Wilson, of Boston, imitated the songs and calls of some forty-odd birds. Mr. Wilson showed remarkable ability in giving these bird-songs, and his part of the program appealed to the younger element. The pupils greeted him with a packed house.

During the entire week a bird-conservation exhibit, supervised by an attendant who was on duty from 1 P.M. to 9 P.M. each day, was held in one of the spacious rooms of the Carpenter Memorial Library. This exhibit attracted scores of people who came and saw for themselves just what things could be done to protect, shelter and feed the song-birds and thus encourage them to come to the city. The exhibit was made up of great numbers of various kinds of bird-homes, feeding-stations, bird-baths, nesting-supply stations, etc. These were appropriately placed in colonies, that the visitors might get well acquainted with just what real bird-homes are. Martin, Flicker, Bluebird, Chickadee, Wren, and many other types of houses were included in the display. This part of the exhibit was contributed by several different bird-home manufacturers.

Numbers of song-birds, well mounted, were shown, thus giving the visitors an opportunity of carefully studying the color, shape, size, and variation in the plumage of male and female. This proved to be a very attractive part of the exhibit. Colored plates of all the birds found in this vicinity adorned the walls, with a full and detailed description of each bird beneath the picture. Many bird-books, contributed by one of the local book-sellers, were shown.

The National Association of Audubon Societies furnished a large quantity of bird literature in leaflet form, and these were distributed gratuitously to all. As the visitors

entered the exhibit room they were received by the attendants and the various parts of the exhibit explained. If desired, orders were taken for bird-homes and bird-books.

In addition to the exhibit in the special room at the Carpenter Memorial Library, the wide-awake librarian had placed about the various rooms in the library pictures of birds, and a list of bird-books available. This bird-book list was also published in the local press.

On one afternoon, in the middle of the week, the members of the Manchester Bird Club took a field observation walk, out in the country, under the guidance of an experienced bird-man. This proved to be a very notable feature of the week, as great numbers of many different species of birds were seen. The guide explained the habits of each bird and the method of recognizing them near to and at a distance. Their nesting habits and many other special characteristics were explained in detail.

The local press gave the week much publicity, which helped very materially. In addition, the chairman of the Publicity Committee had collected a series of short articles on bird-lore, written by several members of the Club, and these were published from day to day, helping very much to create a sentiment favorable to the work.

The entire week proved to be a most successful one, and the local interest created for the protection of our songsters was an endorsement of the soundness of the movement. The Manchester Bird Club hopes to make 'Song-Bird Week' an annual observance in this city. Certainly the results obtained from the first endeavor warrant its being placed on the calendar every year.—G. S. FOSTER, M. D., *Manchester, N. H.*

The Northern Phalarope in Michigan

This picture was taken May 21, 1922, about 15 miles west of Detroit. I was looking



A RED PHALAROPE IN MICHIGAN
Photographed by Dr. Frank N. Wilson

over a pasture lot, known to be a favorite haunt of a pair of Upland Plover, when I saw two unfamiliar birds swimming on a small pool, hardly more than a large mud-puddle. The birds were quite conspicuous because of their white breasts, and when I came closer I saw the dark red markings on the side of the neck and realized that they were Phalaropes. When feeding in the grass at the margin of the pool, the birds were very inconspicuous, in spite of their striking appearance at close range. I set up my hiding-tent near the water, and two of the members of my family, who were with me, tried to drive the birds past the tent. This method was not at all successful and finally the birds flew away from the pool altogether. I thought they had escaped me but after about twenty minutes they returned and began to feed as before. This time I tried walking up to the birds with the reflex camera in my hands and succeeded several times in approaching within 7 to 8 feet. When I came close the birds rapidly swam away, and most of the pictures were spoiled by poor focusing. I thought at first that I was dealing with the Wilson's Phalarope but after I had examined a series of skins of the two species at the University museum I was forced to conclude that the birds were Northern Phalaropes, although these birds are very uncommon in Michigan.—DR. FRANK N. WILSON, *Ann Arbor, Mich.*

An Ice-bound Canvasback

The past winter has been rather barren, so far as bird news is concerned, and for this reason, perhaps, we attach more importance to the following episode in rescue work than it deserves:

February 14, we noticed an open spot in the ice on the Detroit River, immediately in front of our home. In the water and on the edge of the ice were ten to twelve Canvasbacks. Six of them eventually came out onto the edge of the ice, facing a wind of about 40 miles an hour, with a temperature of 11 degrees above zero. Spray was dashing from the open water, and we were anxious regarding the safety of the birds. The next morning, at daylight, we found that all the

birds had gone but one, which was on the ice in the same position apparently that it had been the night before. By laying ladders onto the surface of the ice we were enabled to dislodge this Duck, which was heavily cemented to the floe of ice.

We took the Duck (an adult Canvasback in good condition) indoors, and, after a great deal of care, were able to dislodge about two pounds of ice from its breast, neck, and head without injuring the feathers or bird in any way. We left the bird in a big boiler of cold water for two hours and endeavored to feed it, but without success. It showed every sign of full vigor and activity as soon as the ice was removed. We thoroughly dried it out, placed a U. S. Biological Survey band on one leg, took the Duck to the edge of the water, and released it. It flew in apparent great strength, heading due south, down the Detroit River, toward Lake Erie.—MRS. WARD B. PERLEY, *Ojibway, Ontario, Can.*

Young Sparrow Hawks

During the past summer (1922), a friend, Mr. Ben D. Cable, kept in captivity, on his farm in Warren County, Illinois, for a period of some thirty days, four young Sparrow Hawks, taken at about the time they were able to fly. Three were females, and it should be recorded that the lone male became, from the first, much the most tractable. Meat scraps predominated in the food-supply, but they were offered various dietetic combinations which they seemed to eagerly relish and upon which they thrived. All exhibited a strong inclination for bathing and in this they frequently indulged. On one occasion the four escaped from their enclosure and were at liberty for two days, but, apparently, were unable to obtain sufficient food, and all were lured to points where recapture was possible. The male and one of the others made a second and permanent escape, and a few days later, on July 26, the remaining two females were released, after having been photographed. To the leg of one was firmly attached a cord, the bird never before having experienced a leash, and it was surprising how quickly it discovered the cause of detention and at once set about to untie, with

no little skill, the knot, as shown in the accompanying picture. Suffice to mention, undelayed freedom rewarded its efforts.—
HAROLD M. HOLLAND, Galesburg, Ills.

The Whisper-Song of a White-Crowned Sparrow

This aristocrat of the Sparrow family, with his quiet dignity, courtly manners, and handsome appearance, merely drops in on us occasionally during migration. He rarely

whisper, must have given his entire repertoire, first, as if humming to himself and then each note distinct and carefully placed, although such a mere thread of sound that only by closest attention could one catch it all.

It was truly a thrilling experience, the strangeness of the whole performance holding one fairly breathless. I have been fortunate in hearing this fairy-like whisper song by individuals of several different varieties of birds, but never one of such complete and



A YOUNG FEMALE SPARROW HAWK
 Photographed by Harold M. Holland

condescends to favor his auditors of the United States with an exhibition of his full musical ability, saving the untested powers of his vocal equipment for the delectation of his mate in the North woods, where they set up housekeeping.

One cloudy, misty May morning, however, when quietly observing the nomad band of feathered pilgrims that had gathered in the spruce trees and shrubbery of the grounds about the old red brick house on the hill, a White-crowned Sparrow flitted to the top of the picket fence, a few feet from where I was standing. He paused a moment, and then in a hushed tone, barely more than a

finished execution.—**MARIE ELLIS HEGLER, Washington Court House, Ohio.**

The Savannah Sparrow

This species is a summer resident with us and our most abundant Sparrow. The birds arrive after the middle of April (earliest date April 19), nest in June and July, flock up in August, and the great majority leave for the South before October 1 (latest date October 14). Of late years, they have been much more plentiful than formerly, owing to the rapid clearing up of our forests and the large quantities of the land almost immediately going

under cultivation. While a bird of the open fields it is well able to take care of itself in emergencies.

May 14, 1921, an unusually heavy fall of snow drove them from the open fields. The next day we found flocks of them in the tree-tops feeding on buds and associating with flocks of Purple Finch. They seemed to be as contented and as much at home in the tree-tops as in the open fields.

Further south these Sparrows seem to chiefly frequent low, damp ground. With us, and particularly during the nesting season, this is not the case; the great majority are found in dry fields, and we have yet to find a nest located in a damp location. Many nest on our Country Club grounds and in dry fields back of town.—M. J. MAGEE, *Sault Ste. Marie, Mich.*

A South Dakota Cardinal

My 'Bird Note' for the last week in February was—"February 24 was like a bit of spring. On that day we had the joy of hearing our Cardinal singing a most entrancing song—long continued and oft repeated—much more intricate and elaborate than any of his various whistling songs. He was in the willows beyond the hedge, not far from the west porch, his beautiful throat swelling with the music as he faced the bright sunshine. We wondered if he was calling for a mate to come and join him here. He has been here through all the winter cold and storms since November 5. We have discovered that he sleeps at night on the clustering woodbine branches close up under the wide eaves of the west porch. We see him go up to bed nearly every night at about sunset."

Since February we have had some of the worst storms of the season and some 20° below zero temperature, but even now I can see the gleam of his scarlet vest as he rests on the branch of a tree in the garden and sings again his entrancing song on this April day.

The sight of his gleaming gorgeousness has been an indescribable pleasure to many of these dwellers on this northern prairie, who never before saw a Cardinal. He hobnobs with the Sparrows and greeted the first

spring Robin with seeming delight. We are sincerely hoping that his calls may bring a mate here so that he will not have to leave us to find one.—CARRIE MORSE NORTON, *Faulkton, S. Dak.*

The History of a Black-capped Chickadee Family

In the winter of 1921-22, a pair of Chickadees came to our yard many times each day to eat suet and sunflower seeds. Early in April, they began to examine two nesting-houses which had been put up in the yard, some time before. One was a log which had been prepared especially for their use; the other was a small, round house made of black roofing, and designed for Bluebirds. They chose the Bluebird house and began nest-building April 18.

Their nest was a thick, deep cup of rabbit fur upon a thin foundation of fine dried grass. The little builders finished their work in a day or two, and then, to my disappointment, they seemed to pay no more attention to it. I watched closely, but did not see them go near the tree upon which their house was fastened, though they still came to the yard for food as usual; and about 5 o' clock each morning I heard a very sweet *Phæbe* song whistled somewhere in the yard.

I waited until May 3, then decided to move the house to a more secluded place, thinking that the Grackles, that perched on their tree continually, had frightened the Chickadees away from the nest. While carrying the house to the new location, I lifted the hinged roof to take a peep at the little nest. To my great surprise, I saw seven tiny speckled eggs. Those little scamps had fooled me completely! I am still wondering when the eggs were placed there. Of course, I lost no time in returning the house to its place.

Incubation began either that afternoon or the next day. The male bird was very devoted to his mate. He often carried food to her while she was sitting. Sometimes she would fly with him across the yard to the tree where their suet still hung. Then, while she sat on a limb not a foot away from the suet, he would peck off bits of it and pass

them to her. I think the eggs hatched May 14.

May 23, two Sparrows began disturbing the little family, so I placed some 1-inch mesh wire fencing around their house, like a cage, enlarging one row of holes slightly. The little parents waited only for me to step down from the ladder, then slipped through the wire as if they had always been used to it. The Sparrows soon went away. Both birds fed the nestlings and carried away the excreta.

I wished to find out when the feeding began, but though I rose before 5 o'clock several mornings, the Chickadees had always risen earlier. Two evenings I watched to see when they stopped work, and saw the mother go into the house for the night at about 8.10 P.M.

Once or twice each day I saw the parent birds carry suet to the nestlings. At other times they carried small insects and worms. May 29, a strange Chickadee came to their tree, singing *phæbe*. Both parents promptly drove it away. A little Wren was driven away the next day. Other birds seemed to be unnoticed.

One morning, when the sun shone into the entrance to their house, I saw a baby Chickadee waving its wings as if taking a physical culture exercise. June 3, about 9 A.M., I was fortunate enough to see seven baby Chickadees fly from the house. They flew well, almost from the first. It was not more than fifteen or twenty minutes from the time the first came out, till the last left. After the last one had flown to the next tree, one of the parent birds came back, looked into the house, started to fly away, then turned and went inside, as if to see that no child was left. Before noon the whole family had left the yard. Then, how we missed the friendly little workers whose 'tinkling silvery' notes had cheered us continually for nearly seven months!

We saw no more of them till June 12, when all nine came back to spend the night in some trees nearby. The young birds were exact copies of the parents, except that their tails were shorter.

July 13, the adult birds came alone to their old nesting-tree; and the male bird whistled

his mating-song. A little Wren had a family in a box, away on an outer branch of the tree. She scolded so vehemently and made such a commotion that the Chickadees seemed afraid to go to their old home. They stayed around a few minutes and then went away. We have never seen them since.

Two Chickadees came here late in the fall, but we could plainly see by their actions that they were strangers.—ETTA M. MORSE, *Woonsocket, S. Dak.*

Bohemian Waxwings in Northern New York

We noticed in the last issue of BIRD-LORE a report of Bohemian Waxwings in Glenfield, Lewis County, N. Y. Denmark is in the same county, about 16 miles farther north, along the range of hills overlooking Black River Valley. On April 18, 1923, we identified a flock of about forty Bohemian Waxwings feeding in an old orchard. There were many apples left on the ground that had been covered by the deep snow. Where the snow had melted away, the birds were feeding. They did not seem afraid; we watched them a long time, observing the white wing markings, broad band of yellow on the tail and gray breasts, and estimated that they were larger than Cedar Waxwings.

The winter has been long and cold, with late spring, which may account for these birds being here at this time of year.

The orchard is about a mile from the house on one of the farms. A man who owns a farm near states that these birds have been there for two weeks, perhaps longer.—FANNIE S. COOK, *Denmark, N. Y.*

Notes on Albino Robins

For several years I have observed a pair or pairs of albino Robins. In 1919, one was seen in the garden on April 26. The following year I saw a bird (I do not know if it was the same seen the year before) in about the same locality on April 24. All through that spring I saw the bird almost every day I visited the garden. On May 15, he was joined by another bird (an albino Robin also, though with much less white on breast and back

than the first bird, which was a male). On May 17, I saw the female bird carrying some twigs to a maple tree near the garden. Creeping up through the bushes as near as I dared to the nest, I stayed watching the birds for half an hour. Steadily the two birds worked, piling twig after twig and straw after straw until the fast growing structure began to take on its proper shape and appearance. Then on hands and knees I crept away, fearful lest I should frighten the birds with some quick or noisy motion. After lunch I returned again to the nest, this time carrying a notebook and a pair of field glasses, though the latter proved useless, as I was in such close proximity to the birds that the naked eye sufficed.

I visited the nest daily until it was completed. May 20 was the day I saw the mother sitting on the nest, and a week later five baby Robins emerged. It was both interesting and amusing to watch the babies, all mouths agape, hop expectantly in the nest as the parent bird came back with food.

One day, on my way to the nest, to my great surprise I saw another full-grown albino Robin—for I knew well it was neither of the birds I had been watching. The same day a friend told me of a pair that had been seen on their place, which was a few miles from ours.

Meanwhile, the babies were growing and were soon sturdy young Robins, well able to fly, but still sitting helplessly on a branch with gaping mouth, calling in raucous tones what sounded to me like "Mama, Mama, bring me my breakfast, Mama!—Mama!!"—for all the world like some cranky child. It always ended in a shrill scream or continued louder and louder, until the parent would return with soothing chirps or a still more soothing worm.

One day I discovered that there was a

pair of albino Robins—other than those I had been watching—living on the place near us. I think that this pair had nested also—but of this I am not sure.

Last year (1922) I again saw my pair of albinos but not frequently, and though I searched diligently for a nest I could not find any traces of one.—CYNTHIA D. KUSER, *Bernardsville, N. J.*

Notes from Bennington, Vt.

On January 17, 1923, I was taking my daily walk in the Carolhurst Bird Sanctuary when a flock of Snow Buntings flew overhead. Upon noticing two darker birds with them, I followed them to one of the feeding-stations. Creeping up from behind a tree, I managed to get a good look at the darker birds before the flock became alarmed and flew away, and found that they were Lapland Longspurs. The Snow Buntings have remained throughout February, but that is the only time that the Longspurs have been observed in the Sanctuary.

On January 11, several Prairie Horned Larks were seen, and on February 24, three Evening Grosbeaks were observed and others heard flying overhead. They were the first of the season, and the Grosbeaks are the first in the Sanctuary since 1918.—CAROLINE JONES, *Bennington, Vt.*

Speed of Flight of Birds

I once had the opportunity of making a few observations of the speed at which birds flew. The birds were observed as they flew across a long field just 20 rods in length. The speed of the Crow varied from 30 to 40 miles per hour, depending on the strength or absence of opposing wind. The Robin flew 30 miles and the Snow Bunting 31 miles per hour.—RALPH BEEBE, *Detroit, Mich.*

THE SEASON

Edited by J. T. NICHOLS

XXXVII. February 15 to April 15, 1923

BOSTON REGION.—The past winter, one of the severest and most prolonged in the last generation, was followed by a phenomenally late spring. The winter held fast until March 3, when, for one day, the water ran in the streets during the first thaw of the year. Then, on March 7, came the worst storm of the season, a blizzard bringing a snowfall of 9 inches.

There was no observable movement of birds until the effect of this blizzard had disappeared. During the week of March 18 to 25, the snow went rapidly and bare ground was exposed on southern slopes, and during this week the first group of migrant birds appeared. These birds had been delayed and did not arrive in their normal order or abundance. The flight of Bronzed Grackles was remarkably large, and on their arrival, ten to twelve days late, they outnumbered the Red-winged Blackbirds a thousand to one. The latter bird was still later in arriving, and even now is not here in full numbers. The passage through this region of the Rusty Blackbird was also conspicuous; for days the bird was more than usually common in wet lowlands, and its high, clear whistle was heard frequently from passing flocks. Bluebirds and Song Sparrows generally arrive together, but, this year, the Bluebirds had established themselves by March 25, three days before the migrant Song Sparrows began to overrun the countryside. Robins arrived in large numbers on March 26 and demonstrated by their behavior that they were spring migrants and not the winter Robins which had been here for six weeks. These March arrivals were all males, feeding almost entirely on the ground, and came freely about our houses. Fox Sparrows came in force on the same day and were common for the following week, singing freely as they do when there is snow on the ground. During this time there was also a conspicuous migration of Marsh Hawks.

The latter part of March was very cold—zero on the 29th—and consequently the

Phoebe, which depends for food on flying insects, was late in moving northward. Phoebes appeared on April 4, the day when the hylas were first heard peeping feebly. This is a very late date for these frogs to come forth, and, although out of the mud, they were not in full voice (and neither were the wood frogs) till April 7.

Within the next few days, Vesper and Savanna Sparrows arrived in fair numbers, and also a few Hermit Thrushes and Ruby-crowned Kinglets, but none of the other members of the early April group has been seen.

The report of the arrival of the birds to date gives little idea of the lateness of the season. These early birds vary in their times of appearance here within very wide limits; a little snow will hold up the whole migration, because many of the birds, Robins and Bluebirds for example, depend on food which they find on the ground. The birds which venture into the country about Boston in March are bound to meet very uncertain weather conditions, but not for many years, if ever, has the country presented the appearance in mid-April that it does today. The days have been cold and windy and the nights frosty. The snow is gone, except the remains of a drift here and there, but the trees stand bare, with no sign of swelling buds or unfolding leaves, and the countryside is as brown and bleak as in winter, without a hint of green.

Compare Boston report for this period in 1921.—WINSOR M. TYLER, *Lexington, Mass.*

NEW YORK REGION.—A period of cold, with the ground snow-covered, showed no break until February 25. Then a week's thaw set in, which culminated in a warm, springlike day, March 4. A wild storm, with snow, soon followed, to dash hopes of an early spring. Though this snowfall was insignificant, and the ground was free from snow through March, where the thaw had eliminated it near the city and on Long

Island, the weather remained unseasonably cold in March and early April. The earliest signs of awakening vegetation came on very slowly, and in mid-April red maples and elms were just in flower.

The first spring Grackles and Song Sparrows, which may arrive the end of February, were behind time. March arrivals, on the other hand, came notably promptly on their respective dates, by species if not by individuals, but following a sharp 'cold wave' about March 31, migration was badly retarded. Three early dates, however, are Hermit Thrush in Central Park, March 28 (Tertius van Dyke), Ruby-crowned Kinglet, Van Cortlandt Park, N. Y., March 31 (F. L. Starck), and Blue-headed Vireo near Newark, N. J., April 13 (R. F. Haulenbeek). The first two of these may have wintered at no great distance. On the springlike morning of March 4 a newly arrived Robin was in full song from a treetop at Garden City. In that section, the Robin does not arrive in flocks but increases gradually from March 1 to April 1. The incident suggests that the earliest birds are summer residents.

As regards winter birds, the White-winged Crossbill was reported in the Bronx as late as April 1, two individuals (F. F. Houghton). This being one of the rare winters when the Vesper Sparrow was present on Long Island in February (see last report), careful watch was kept of its main Long Island breeding-grounds in the Hempstead Plains section to see if it would return early, but it was not noted there until April 6, which would suggest that such February birds are New England nesters.

The first satisfactory observation of the wintering of the Killdeer on Long Island, that has come to the writer's attention, is furnished by Charles R. Weinburger. He found 4 individuals at Hempstead Reservoir from January 3 to 7, 1923, 3 individuals on eight separate dates from January 9 to 31 and on seven dates from February 7 to March 7, then 4 on March 9, 6 on March 13, and 10 on March 15 and 20. His first bird of the species at the same locality in the six years 1917-22 has varied from February 14 to March 11; average February 28. The locality seems to have been an unusually

favorable one for the Killdeer to winter—a pond with water low, mostly mud, numerous little streams entering it to keep it always moist, sheltered to the north by a wooded swamp, to the northwest and west by high ground, and open to the south and east.

On March 25, where a pair of Killdeer had nested on the Hempstead Plains the year previous, three of these birds were encountered by the writer, one of the three only loosely associated with the other two, which seemed to be a pair. These were very demonstrative and noisy. They used the same complaining notes as when nesting, and one even squatted with wings at the side and low chattering call, apparently under ordinary circumstances a ruse to attract one away from nest or young, and at this date when even nesting-site would not have been selected, purely reflex or instinctive.

It would seem to be a reasonable hypothesis that the arrival of northbound migrants at a given point depends on weather conditions at their point of departure further south, not at their point of arrival. Two incidents on Long Island, the present season, support this view. Some 12 Pintail, mostly drakes, were noted at Mastic, February 22 (J. T. N.), and 3 at Amityville the same day (M. S. Crosby). On that date a long period of cold showed no signs of breaking, and lower courses of the creeks were frozen to an extent rare at any time in winter, yet these Ducks were probably migrants. That there was a spring Pintail movement of considerable extent is evidenced by a pair flushed from a temporary rain-puddle near Garden City, March 17 (R. C. Whitman).

Three or four days of unseasonable cold culminated on April 1 with a dawn temperature of only 13° at Mastic, yet probably a half dozen Pine Warblers, bright birds, likely all males, were observed there March 31 and April 1 in sunny deciduous shrubbery and on the ground, not back in the pines where they are usually found.

There was a satisfactory and in many ways remarkable showing of Ducks on Overpeck Creek, N. J., in March and early April. Besides an abundance of more usual kinds, the occurrence of American Widgeon, Green-winged Teal, Canvasback, and Ring-necked

Duck is especially notable. Griscom, April 15, obtained the latest local date for Green-winged Teal (1) and Canvasback (6), as also the earliest date for Greater Yellow-legs (3). A pair of Ring-necks on March 25 (Griscom and J. M. Johnson) is the first record for the locality. Crosby at Rhinebeck, N. Y., also reports an unusual spring flight of Ducks, including a record of Ring-neck and Shoveler.

Small flocks of Cedarbirds appeared in March, as they do every few years. At Garden City, flocks of from 2 to 15 were noticed on March 14, 22, 24, 27, 30—none the first half of April. Reports of similar occurrence in New Jersey show the movement to have been general: Branch Brook Park, large numbers (R. F. Haulenbeek); Englewood, March 3 or 4 (T. D. Carter); Montclair, March 9, 3 individuals (R. H. Howland); Ridgewood, March 11, 5 individuals (J. M. Johnson); etc. Looked at critically, there are reasons for considering such March movements of Cedarbirds not a true spring migration. Early migrants are usually early nesters, the Cedarbird a late nester. At this season it feeds to a considerable extent on fruits of which the supply must still be decreasing instead of increasing. It winters much more plentifully or frequently in the broken country north of the coastal plain than in our northern edge of the coastal plain. Breaking up and scattering of wintering flocks could easily increase the frequency of reports and give a false impression of an increasing number of birds.

The most interesting return reported by local bird-banders has to do with the Purple Finch. B. S. Bowdish trapped a large number of this species at Demarest, N. J., where one, banded on January 12, repeated as late as March 15. Among them he took, on February 12 and March 12 respectively, two individuals, both banded by Frank J. Novak, at Fairfield, Conn., about January 22. This definitely proves an east-west movement of the Purple Finch along Long Island Sound in late winter, which direction is that ordinarily followed by 'southward' flights of Finches and other birds. Stray Purple Finches appearing at certain points in our region as early as February have sometimes

seemed like 'spring arrivals,' and this does not definitely disprove that they are such.—J. T. NICHOLS, *New York, N. Y.*

PHILADELPHIA REGION.—The weather for the season just passed has been anything but pleasant, cold, stormy days prevailing. Temperature of 14° April 2, a thunder-storm, accompanied by high winds, during which houses in Philadelphia were demolished (April 5), were unusual features.

Since this region was not represented in the last report, it seems advisable to place on record data received concerning a marked invasion of Red and White-winged Crossbills which occurred during the winter. They appeared about the middle of January and remained until mid-March. The Red Crossbills were the more common. On January 23, along Wissahickon Creek, Philadelphia, both species were observed (Yoder, Gaede); January 21, Mt. Holly, N. J., both species; February 18 and March 18, Red Crossbills (Pumyea); February 25, Glen Olden, Pa., Red Crossbills (Gillespie).

A Rough-legged Hawk recorded by Mr. Pumyea February 12, at Mt. Holly, is of interest.

The early spring migrants, Grackles, Redwings, Robins, Flickers, and the like, appeared on time and in their usual numbers in spite of unfavorable weather conditions. March 11, Cape May, N. J., Piping Plover.

We have listened in vain for the notes of the Carolina Wren, this spring in this vicinity. It seems probable that they have suffered a severe reduction in numbers.

Migration of water-fowl along the Delaware River has been, perhaps, somewhat above the average. The number of species present, at least, was noteworthy—Delaware City, Del., March 30, Mergansers 2, Black Ducks 100, Pintails 500, Wood Ducks 3 (probably residents), Shovelers 4, Whistling Swan (no knob at base of bill) 1; Fish House, N. J., April 7, Mergansers 10, Canvasbacks 30, Golden-eye 2, Scaup (species?) 150; Burlington, N. J., April 8, Black Duck 10, Scaup (species?) 100, Golden-eye 10, Pintails 3, Mergansers 15 (Pumyea, Potter).

April 8, a cold, windy, stormy day, the Purple Martin was first noted at Burlington,

N. J., also Greater Yellow-legs; Fish House, N. J., spring flight of Wilson Snipe seems to be at its height, and the favorable damp meadows appear to contain more than the usual quota. The Phoebe was noted diving for insects in sheltered nooks. The arbutus is in flower and swamp maple in full bloom. Warm spring days cannot be far distant.

April 12, first Bonaparte's Gulls noted on the Delaware River; April 14, heavy fall of snow today.—JULIAN K. POTTER, *Camden, N. J.*

WASHINGTON REGION.—Bird observation in the Washington region during February and March was rather disappointing. Owing, apparently, to the unseasonably cold weather of the latter month, many birds have been slow in coming. This is, however, more particularly the case with those that remain here in part all winter than with those that are strictly migratory, although the Phoebe, for instance, did not appear until March 18, whereas it was due on March 11.

A single Catbird apparently got lost or forgot the time of the year, for he visited the vicinity of Arlington, Va., on February 21, where he was seen by Mr. and Mrs. L. D. Miner. This equals the earliest date on which an individual of this species had ever been seen in the vicinity of Washington, which was February 21, 1915.

The cold weather, however, has seemingly not much influenced the singing of birds, except at times. The Cardinal has been in song from at least February 5, the Tufted Titmouse from February 9, the Song Sparrow from February 25, the American Goldfinch, the Slate-colored Junco, and the Bluebird from at least March 4, the American Robin from March 9, and the Purple Finch from March 14.

Robins were in small flocks in places about the city, and even in more remote localities, during the latter, if not the early part of the month of February, but they did not become generally distributed in the vicinity of Washington until after March 1. The Carolina Wren was in song during March, and gives evidence of having, at least in considerable part, regained its former numbers after a period of marked scarcity.

An interesting flock of from 25 to 50 Cedar Waxwings frequented a heavily berry-laden holly tree in the Mall close to the new United States National Museum, where they regaled themselves for several days during the week including March 22 and 23.

Very few of the rarer winter visitors from the North have been reported about Washington during the present season. A notable exception was the White-winged Crossbill, which, in addition to its appearance on January 1, already recorded in these columns, visited Woodridge, D. C., on February 25, where a flock of 15 was seen by Mr. E. R. Kalmbach. The Horned Grebe, a species of not nearly so common occurrence in this region as the Pied-billed Grebe, was seen at Dyke, Va., on March 18, by Mr. L. D. Miner.

Large numbers of Ducks, together with some Herring Gulls and Ring-billed Gulls, frequented the river continuously during the months of February and March. At no time was the weather cold enough seriously to interfere with their activities, and, apparently their numbers were fully as large as they were during the previous winter. The character of the flocks, however, has somewhat changed since last fall, and now the bulk is made up of Lesser Scaups, Greater Scaups, and Black Ducks, although a number of other species are present in sometimes considerable numbers. On March 18, the following species were observed near Dyke, Va., by Mr. Edmund Platt, Mr. and Mrs. L. D. Miner, and Mr. C. R. Shoemaker: Lesser Scaup, Greater Scaup, Black Duck, Mallard, Canvasback, Pintail, Ruddy Duck, Baldpate, American Merganser, and Hooded Merganser.—HARRY C. OBERHOLSER, *Biological Survey, Washington, D. C.*

PITTSBURGH REGION.—While there has been a steady rise of temperature, there have been extremely cold spells, accompanied by snow and high wind. The week of March 25 was particularly cold, and temperatures were reached which were the lowest recorded for the date by the Weather Bureau. Even as late as April 12, the weather was still comparatively cold, but these conditions have not apparently influenced greatly the arrival of

our well-known spring birds, nor have they detained the winter visitors in especially large numbers.

The flocks of White-winged and Red Crossbills, which were observed by many enthusiasts, were reasonably common at Wildwood constantly until March 3. It seems that they left almost simultaneously. The Pine Siskins, however, have remained, though not in as great numbers as formerly, and I heard individuals in full song at Huntingdon during my visit there, from March 27 to April 3. In this region, Golden-crowned Kinglets were very abundant, as were also Juncos, Fox Sparrows, and Robins. At Mill Creek, on April 2, Turkey Vultures became common, although several of the usual spring birds had not yet appeared in full numbers. The fact that Robins, Meadowlarks, Mourning Doves, and other summer residents have wintered this year, has made it difficult to ascertain the date of arrival of the migrating birds. Mr. Bayard Christy reported the Phoebe on March 18, at Clinton Pond, somewhat earlier than its average date, while I recorded the species on March 17, at Bethany, W. Va. Apparently, the birds were there in full numbers. Mr. Christy also recorded the Towhee at Clinton Pond, on March 18, and I was somewhat surprised to find many Field Sparrows in full song on the same date at Bethany, W. Va. At Duquesne, on March 26, Mr. Joseph Galloway saw enormous numbers of Song Sparrows in flocks, and in bright plumage, giving the impression certainly of being migrating birds. Mr. Galloway states that Killdeers had occurred near Duquesne commonly for some time, and 14 were seen on that date. My record of the Louisiana Water-Thrush at Huntingdon, on March 30, is unusually early, Mr. Christy's first record for Clinton Pond being April 8. Tree Sparrows and Juncos were still abundant on April 15, but Brown Creepers and Golden-crowned Kinglets were not recorded near Sewickley.

Miss Helen Blair has recorded interesting new species for Schenley Park, a wooded area within the confines of Pittsburgh. During the week of April 1 she saw Purple Finches, and, on April 8, a Winter Wren. So far as I know, these birds have not before been seen

in the park. On April 4, Mr. Fred Homer found Purple Finches in Mercer County, and also Red-bellied Woodpeckers. Of particular interest are records of the Migrant Shrike: March 21, Greenville, by Mr. Louis Homer, and on March 17, at Raccoon Creek, not far from Beaver, by Mr. Rudyerd Boulton. Also noteworthy are records of the Starling: March 3, near Perrysville, and March 17 Murdocksville, by Mr. Christy. At Huntingdon I found them abundant; they are said to remain there all winter. Mr. William Chandler found an unfinished nest of the Prairie Horned Lark on March 18, at Duquesne. On March 25, there were three eggs in this nest, and other nests were found later, in the same region, by Mr. Galloway. A large flock of Horned Larks has wintered near Duquesne, and was present April 15. It is not certain what form these birds represent, since no specimens have been collected; none of the birds of the flock, however, is nesting. Although Carolina Wrens have been unaccountably rare in the Panhandle of West Virginia during the past few years, they are again common in Brooke County.

Great interest centers in the water-bird records. The Ring-necked Duck has been seen at three localities. Mr. Jesse Jones found five individuals on Braddock Reservoir on March 9; there were two males and three females. They remained at least until March 15, on which date Mr. Homer and myself observed them at close range. On March 31, at Clinton Pond, Mr. Christy saw two males in full plumage, and, on April 12, Mr. C. E. Schinneller brought an adult female alive to the Museum. Mr. W. E. Clyde Todd saw several Black Ducks, March 18, at Beaver. Their footprints along the shore indicated they may have been there for some time.

Mr. Christy has been making an admirably intensive study of Clinton Pond this season, and he has noted at this remarkably small body of water the following interesting species: Bufflehead, flock of 9 males, March 29, and on the same date, 6 Pintails; the Ring-necked Ducks, above referred to, on March 31; Ruddy Duck, male, on April 6; Hooded Merganser, 4 females, April 6-8; Black-crowned Night Heron, April 6, (an immature bird); a large flock of American

Scaup Ducks on April 8, and a Coot on the same date; and a Great Blue Heron on April 9. Mr. Christy's methods of observations are to be recommended.

While the presence of unusual winter visitors during February seemed to indicate that we might find such rarities as the Evening and Pine Grosbeaks and Northern Waxwings, no certain record of any of these has come to hand. Observations of both Mr. Todd and Mr. Boulton seem to agree that Redpolls may have occurred in Beaver County in late February, but the records of neither observer were positive. At Huntingdon three Ravens were observed by Mr. Cooke Bausman and myself, and a nest containing five eggs was found on March 29. This bird is now almost extinct in our region.—GEORGE MIKSCH SUTTON, *Statistical Secretary, Audubon Society of Western Pennsylvania.*

OVERLIN (OHIO) REGION.—The winter here has not been severe, but it has been very tenacious and changeable. Temperatures have varied between 30° below, and 40° above freezing. Precipitation has been moderate. Favorable weather conditions have not lasted for more than three days at a time, and changes for the worse have usually been so sudden as to scatter or diffuse migration, so that we have not had such noticeable waves of migration as is usual. There were, however, distinct movements on February 25, March 3, 17, 26, and April 1, 3, and 7. In general, the migrants have been earlier than the average, while some were very late, and a few were much earlier than usual, and in some cases, were the earliest record for the species so far secured.

Crow, common February 23; Robin, February 25, common February 28; Bluebird, February 25, common after March 3; Song Sparrow, singing on February 25, common after March 4; Meadowlark, February 25, common after March 3; Cowbird, February 28, regular thereafter, not common until April; Killdeer, March 2, regular thereafter; Rusty Blackbird, March 3; Fox Sparrow, March 3, not common until April 6, but rather common after this date; Red-winged Blackbird, common since March 3; Black Duck, March 3, common in marshes since

March 15; Bronzed Grackle, March 3, common and abundant thereafter; Northern Flicker, common after March 3; Mourning Dove, singing on March 4, common after March 10; Mallard, March 4, common in marshes after March 15; Canvasback, March 5, only one record, same bird stayed at the Oberlin waterworks reservoir until March 9; Canada Goose, March 7, also flocks March 17 and 24; Lesser Scaup Duck, March 10, regular thereafter and common after March 23; Bufflehead, March 10, regular, seven records; Woodcock, March 11; Field Sparrow, March 12, common after March 21; Baldpate, common in the marshes after March 17; Towhee, March 17, common after March 25; Merganser, March 17, not seen during the winter; Pintail, March 17, common thereafter; Wilson's Snipe, March 17, regular thereafter; Green-winged Teal, March 17, two records; Turkey Vulture, March 18, common April 7; Coot, regular after March 22; first movement of ring-necked Duck, March 23, fairly common since; Greater Scaup, March 24, five records; Phoebe, March 24, common since April 7; Hooded Merganser, March 24, three records; Great Blue Heron, March 24, regular thereafter; Ruddy Duck, March 25, four records; Red-head, March 25, regular on the Oberlin waterworks reservoir; Red-breasted Merganser, March 26, regular, common at Lake Erie April 1; Belted Kingfisher, March 26, common after April 7; Vesper Sparrow, March 26, common after April 7; Shoveller, March 26, regular; Hermit Thrush, March 26, common after April 7; Pied-billed Grebe, March 26, four records; Loon, March 28, three records for the reservoir; Blue-winged Teal, common March 28, four records.

Bittern, April 1, early, two records thus far; Pectoral Sandpiper, April 2, three records, common when seen; Chipping Sparrow, April 2, not yet common; Migrant Shrike, April 3, not yet common, two records; Tree Swallow, April 6, fairly common April 7; Upland Plover, April 6, two records; Spotted Sandpiper, April 6, two weeks ahead of usual time; Grasshopper Sparrow, April 6, nearly three weeks before normal; Common Tern, April 7, flock of about ten at Lake Erie—earliest previous record April 29,

1907; Yellow-bellied Sapsucker, April 7, regular since; Purple Martin, April 7, have occupied Martin-houses in small numbers since then; Barn Swallow, April 7, no more records yet; Bonaparte's Gull, April 7, early, flock of about 20 at Lake Erie, and three records for the reservoir; Savannah Sparrow, April 7, two records; Warbling Vireo, April 10 (S. Grant), one record, seventeen days before normal; Lincoln's Sparrow, April 12 (W. H. Daniels), one record, nearly a month before normal; Carolina Chickadee, April 12 (W. H. Daniels), second record for Oberlin; Carolina Wren, April 12 (Daniels), very uncommon here; Ruby-crowned Kinglet, April 14, on time, one record thus far; Louisiana Water-Thrush, April 14; Bank Swallow April 15.

At the marshes of the Cedar Point region, Lake Erie, there was a slight increase in the numbers of Ducks over those of last year. The height of the Duck migration seems to have been on March 26, when the numbers mounted into the thousands. The most abundant species were Black Duck, Mallard, Pintail, and Baldpate. Periods of freezing weather succeeded the arrival of many of the Ducks, and natural food became scarce, but the Gun Club, owner of the marshes, regularly distributed corn for their benefit, and helped them along until the other food was accessible.

On April 7, there was a small migration of Raptores: Sparrow Hawk, 15; Marsh Hawk, 8; Red-shouldered Hawk, 5; Cooper's Hawk, 1; Sharp-shinned Hawk, 1; Rough-legged Hawk 1; and a Short-eared Owl was seen at about 2.30 P.M., flying northwest over Lake Erie, a very unusual occurrence. Herring Gulls have been found a few times over the woods near Oberlin, which is about 15 miles from the lake, their natural movements, possibly, disturbed by the strong winds. Slate-colored Juncos have become more abundant in the last week, and Purple Finches have been abundant all winter.

Trees are budding and the buds of many of the shrubs are nearly ready to burst. Grass is becoming greener, due to the recent rains, and the first convincing indication that April weather is here at last occurred on April 15 when there were showers accom-

panied by thunder, instead of the usual monotonous drizzles.—HAROLD C. JONES, Oberlin, Ohio.

CHICAGO REGION.—These two months of our early spring have been more than usually cold. The latter part of February was marked by the heaviest snow of the winter. March brought only a few warm days, and the first two weeks of April have been, for the most part, cloudy and rainy. The arrival of migrants has been somewhat delayed, though many of the hardier species arrived approximately on time.

A Pied-billed Grebe was reported on March 3 by Mr. Leopold. Horned Grebes appeared April 6, and Loon and Red-throated Loon on April 8 (Watson and Leopold). The Red-throated Loon remained at Jackson Park yacht harbor several days, where it was seen by many. Pond and river Ducks have not been observed frequently this spring, and the Blue-winged Teal seems to be the only species which is as common as usual. The Mallard occurred at Riverside on March 24. Shovellers have been seen at their Wolf Lake nesting-grounds on April 8 and 14. Red-breasted Mergansers (first seen by Mr. Gault at beach on February 25) are the most abundant of the lake Ducks. Lesser Scaups are very common, Ring-necks have been seen a few times (Glen Ellyn, March 26; Jackson Park, April 6 and 9), a flock of 6 Buffleheads have remained in Jackson Park since March 18. Old Squaws and Golden-eyes are reported every day. Large flocks of Canada Geese have been recorded. (River Forest, March 10 and 21; Dunes, March 17 and 25). Bitterns and Great Blue Herons arrived early this year. Both species were seen by Dr. Eifrig at Riverside on March 24. Mr. Leopold found the Sora at Wolf Lake on April 14.

Among the shore-birds, only the Woodcock (Riverside, April 8), Wilson's Snipe (Waukegan, April 8), Pectoral Sandpiper (Hyde Lake, April 12, flock of 40), and Killdeer (River Forest, March 2) have been recorded. Of the Hawks the following have appeared: Marsh February 17, (probably wintered), Cooper's (March 25), Red-tailed (April 6), Red-shouldered (March 3), Broad-winged

(April 8), Sparrow (March 24). Dr. Eifrig reports the Rough-legged Hawk at River Forest, March 5, 8, and 20. The bird seemed to be attracted by the great numbers of mice infesting the fields near there. Mr. Gregory found a Pigeon Hawk on April 8 near Waukegan.

Mr. Gault reports Yellow-bellied Sapsucker (Glen Ellyn, April 4), Red-headed Woodpecker (Riverside, April 8), and Northern Flicker (Dune Park, Ind., March 17). The first Phoebe was reported from Jackson Park, March 22, by Mr. Watson. Large flocks of Blackbirds arrived early in March—Bronzed Grackle (Dunes, March 3), Red-wing (River Forest, March 4), and Rusty (Dunes, March 12).

Mr. Gregory reports Crossbills at Waukegan, April 8. Purple Finches have been more common than usual during the winter and early spring, and are reported from all parts of the region. Vesper Sparrows were seen at Glen Ellyn, April 8, and Savanna Sparrows at Hyde Lake on April 12. Others reported are the Fox (River Forest, March 6), Towhee (Dunes, March 17), Field (River Forest, March 26), and the Song Sparrow (a few wintered; abundant by the middle of March).

Purple Martins were reported from Waukegan, April 8, and from Jackson Park, April 11. Bohemian Waxwings were seen in Jackson Park on the morning of March 22 (Mr. Watson). This is the last date on which these winter visitors were reported. They were seen several times in the Dunes during the month of February (Mrs. Cramp). The first Migrant Shrike was reported March 25. Myrtle Warblers were reported April 8. The White-breasted Nuthatch was first reported from Glen Ellyn, on February 27, at which time Mr. Gault heard the bird give its mating-note or -song. Golden-crowned Kinglets, which wintered in small numbers, became common about the end of March, and on April 8, Ruby-crowned Kinglets were reported from Riverside and Waukegan. The Hermit Thrush was reported from Jackson Park on April 8. Robins came in good numbers on March 3, and again on the 17th, becoming common by the end of March. Bluebirds arrived on March 3. Many good-sized flocks were seen during March. Mrs.

Coffin reports a very pleasing sight in an Indiana orchard (near Dune Park) on March 17. At least 50 Bluebirds stopped for a time in the blossoming trees of a small protected hollow, where the beautiful coloring of the birds was enhanced by their charming surroundings.—GEORGE PORTER LEWIS, *Chicago, Ills.*

MINNESOTA REGION.—The severe cold weather of the first half of February abated somewhat after the 15th, but the month as a whole was cold and rough, the highest temperature being 43° at noon on the 25th. But little snow fell in this locality.

March came in mild and pleasant, with maximum temperatures of 56° and 54° on the 1st and 2d respectively, causing the small amount of snow on the ground to disappear almost entirely. But on the 3d it turned cold again, with a fall of snow that was especially heavy in the southern part of the state. From this time on the month continued unusually cold and stormy, the occasional mild days followed at once by "freeze-ups" with light falls of snow. On the 19th the mercury fell to 14° below zero, but this state escaped in large part the great storm that swept across the country south of Minnesota on this date. The month ended with morning temperatures of minus 3° on the 30th and plus 3° on the 31st, the coldest March exit since 1870. The mean temperature for the first twenty-nine days was 33.8°; only 3° higher than the corresponding figure for January.

April thus far has been marked by alternating mild and cold days, with several falls of snow, the heaviest on the 7th, when 10 inches fell, the greatest depth for the entire winter just past. Snow fell all day on the 14th, and on the 15th it was cold and raw, with the ground white far down toward the southern boundary of the state. Cold north winds have prevailed much of the time, due to the fact that winter still holds in the northern part of the state where snow has accumulated to a considerable depth during the last few weeks. Mr. P. O. Fryklund, of Roseau, not far south of Lake of the Woods, reported that on April 8 snowdrifts 9 feet high still existed in that vicinity, and under

date of April 12 wrote: "Here it is still quite cold and winter-like. Sleighs are used on the roads, there being too much snow for wagons."

An unusually mild winter up to February 1 was followed by a month of intense cold, and a cold, backward spring which has so retarded conditions that the season is at least ten days or two weeks behind the average. Willow and hazel catkins, usually in full bloom at this time, have not developed and only a few pasque flowers in exceptionally sunny and protected places have struggled into bloom. The larger lakes are still ice-bound, and the ice from the upper Mississippi has not made its appearance as yet.

The mild weather of December and January, coupled with the absence of deep snow and an abundant supply of wild berries, induced many summer birds to remain in the state, several of which are without previous winter records. In the latter class may be mentioned a Brown Thrasher seen on December 29, and on several days thereafter, at Washburn Park, a suburb of Minneapolis (Mrs. Wyman); a White-throated Sparrow at Red Wing on January 20 (Miss Densmore); a Vesper Sparrow near Anoka on January 11 (Mrs. Hodson); a Sparrow Hawk at Pipestone on December 27 (Peterson); and Great Blue and Black-crowned Night Herons at Hutchinson on December 21 (Eheim). Other unusual records were the following: a Meadowlark at Hutchinson December 21 (Eheim) and a number at Fairmount, near the Iowa line, during January and early February (Dr. Luedtke and Miss Lakela); a Bluebird at Cannon Falls on December 21 (Swanson) and 'several' at French River, St. Louis County, on the north shore of Lake Superior on January 6 (Charles Holbrook), this being a most surprising record but apparently well authenticated; Flickers at Cannon Falls December 11 and January 8 (Swanson); a pair of Mourning Doves near Anoka December 27 (Mrs. Hodson); a Red-tailed Hawk at Cannon Falls December 26, (Swanson); Song Sparrows at Red Wing December 26, (Densmore), and at Canton December 31 (Miss Rice). Robins have been reported throughout the winter from all over the state, even as far north as Fly up on the Iron Range (Miss Donald), and a remarkable

happening has been the wintering of hundreds of these birds along the north shore of Lake Superior between Duluth and Grand Marais, feeding on the unusually abundant crop of mountain-ash berries that remained on the trees since last fall. Robins in large numbers have also spent the winter at La Crosse and at La Crescent along the south-eastern border of the state.

The usual half-hardy species have been present in considerable numbers, especially at southern localities, viz.: Tree Sparrow, Junco, Goldfinch, Purple Finch, Cedar Waxwing, Horned Lark, Crows and an occasional Grackle, Brewer's and Red-winged Blackbird and Red-headed Woodpecker.

With the exception of Redpolls, Snow Buntings, and Lapland Longspurs, winter visitors from the north have been rather scarce. Evening Grosbeaks have been reported in small numbers, chiefly late in the winter, from a few localities: Red Wing, St. Paul, Minneapolis, Anoka, Duluth, and Ely. Bohemian Waxwings were present in small flocks toward spring at Minneapolis and Anoka (Gillis). Two records only for the Pine Grosbeak: Canton and Duluth (Gross). Snowy Owls in very limited numbers. A few Great Northern Shrikes, Pine Siskins and Red Crossbills, both summer residents in the northern part of the state, have been reported several times from southern localities. An unusual occurrence was the capture by Mr. Eheim of a Great Gray Owl as far south as Hutchinson, McLeod County, on January 14. Mr. Fryklund, of Roseau, up near the Canadian boundary reports that this Owl has been unusually abundant there the past winter. Magpies have not entered the state from the west in the numbers that they did last year, there being only two records from along the western border: Pipestone (Peterson) and Ivanhoe, Lincoln County (Mrs. Campbell).

The Tufted Titmouse has been reported from two localities. Two were seen at Red Wing on January 27 by Miss Densmore, a first record for that place, and one at Cannon Falls on January 24 (Swanson), where it has been seen before in previous winters. Several of these birds are reported each winter of late from widely scattered localities in the south-

ern half of the state, but as yet there are no summer records. The status of this southern species in Minnesota at present is very much like that of the Cardinal fifteen to twenty years ago.

The following notes, indicating the approximate time of arrival of some of the commoner species, have been kindly supplied for the most part by Mrs. Judson L. Wicks of Minneapolis; Mr. A. C. Rosenwinkel, St. Paul and New Ulm; Mr. Harry S. Thompson, St. Paul; and Mr. Frank Gillis, Anoka. Unless otherwise stated, the locality is the vicinity of Minneapolis and St. Paul. March 6, 2 Bluebirds (Anoka); March 17, Marsh Hawk; March 24, Juncos arrived in numbers, several Bluebirds; March 26, several Killdeer at Red Wing (Miss Densmore); March 29, flock of Horned Larks reached Roseau; snow still deep and temperature 31° below zero on the 31st (Fryklund); April 1, first Bluebird at Minneapolis (Frost); April 2, Great Blue Herons arrived at heronry on upper Lake Minnetonka, while lake's still ice-bound (Mr. R. O. Foster)—a flock of Bohemian Waxwings still at Anoka; April 3, Song Sparrows (New Ulm); April 4, Robins, Herring Gulls, a great wave of Juncos; April 5, several flocks of Canada Geese going north (New Ulm); a large flock of Red Crossbills containing a few Pine Siskins at Northfield (J. W. Hornbeck); April 10, Purple Martins, Robins plentiful at Anoka, Killdeer at Anoka, Red Crossbills at Minneapolis; April 11, Yellow-bellied Sapsucker, Flicker, Song Sparrow; April 12, Phoebe, several; Hermit Thrush; Tree Swallow; Sparrow Hawk; Ruby-crowned Kinglet, several; April 13, Fox Sparrows; April 14, Robins migrating in great flocks and many Fox Sparrows in full song (Commons); first pasque flowers in bloom (Miss Edgar); April 15, Vesper Sparrows; Loon; Lesser Yellow-legs.—THOS. S. ROBERTS, *Zoological Museum, University of Minnesota, Minneapolis, Minn.*

DENVER REGION.—Sudden storms may disappoint the bird-lover because they hold back migration, the coming of the spring migrants, but, on the other hand, it is quite apparent that such storms often give one a chance to gain an insight into bird ways and

see things that are otherwise unnoted, or impossible to witness. And, too, they may give one some very happy experiences. It has been mentioned in these regional notes that, after a sudden snow-storm in the spring, thousands and thousands of Robins suddenly appear in and about the city of Denver. Such a visitation has been explained on the supposition that such birds were migrating during the night and were compelled to lay over because of the storm, thus giving one an opportunity to witness a delightful sight. Such a combination seems to have obtained all over Colorado about the middle of March precipitating to the ground thousands of Mountain Bluebirds.

About March 18, hundreds and hundreds of Bluebirds appeared in the neighborhood of Grand Junction (Colorado); on March 11 Mr. Victor Kennicott, of Denver, saw a vast multitude of these birds in the alfalfa fields surrounding his Duck Club-house. Mr. Kennicott is an experienced Duck shooter, long accustomed to estimating the number of birds in a flock. So when he tells me that there could not have been less than 2,000 Mountain Bluebirds in the field he was privileged to study, I am quite ready to accept his estimate and envy him the joy of such a marvelous sight. I myself saw a flock of only about a hundred on March 18, in Washington Park, and it was equal to any movie thrill yet dispensed. When this flock flew to a bare maple tree, it looked as if it were all abloom with iris.

I am greatly indebted to Miss Ada B. Copeland, of Grand Junction, for notes of this season on birds in her vicinity. She is the only active worker in ornithology on the western slope of our state that I know of, and I hope to have her observation regularly to contrast with mine of the east side of the mountains. While it is true that her region is not a physical part of the Denver region, yet I am sure it will be helpful to have her notes incorporated in mine for comparison alone.

Grand Junction is, in an air-line, about 200 miles from Denver and about 50 miles south of Denver's latitude, and has a milder, drier climate, hence showing decided differences in seasonal bird-life, as well as differences due to its situation on the Pacific slope, and pos-

sibly, too, because it is on a main highway of migration, viz., the Grand River Valley. The fact that it is at a lower altitude (about 700 feet) may also bring about some contrasts in bird-life.

Say's Phoebe winters there more commonly than it does on the eastern slope, as also do Meadowlarks, Robins, and Bluebirds. For some reason, the Bohemian Waxwing has been seen there both of the preceding winters, while, so far, none has been noted or reported as being in or about Denver.

Cassin's Finches have been very common here up to date, a few occurring well in toward the center of the city, one having been detected not far from the State Capitol on March 4. This Finch has been very abundant also at Grand Junction this winter.

Mrs. L. K. Robinson tells me that she has seen a small flock of Evening Grosbeaks in Washington Park, the last occasion being on April 8, there being then only five birds in the flock. Neither Miss Copeland or the writer has seen this species on observing days. This may well be the result of chance, or this flock may have been a straggling single flock in these parts of Colorado.

Say's Phoebe should have been here this week, but none has come under my notice, though my daughter has seen it near Julesburg, a spot nearly 200 miles northeast of Denver, in the corner of the state. Miss Copeland reports no Say's Phoebes, so far, in her area, but was greatly surprised and pleased to see an Ash-throated Flycatcher there on March 25 and 29. This is very unusual on such dates, for this Flycatcher is at no time common in the state, even in its usual habitat on the western slope, and does not ordinarily reach that region until May. I expected, because of the abundance of Meadowlarks all winter in the suburbs, that the species would penetrate into the city itself earlier than usual, which proved to be the case. They came into our city parks during the last week of March, a date as early as any of my previous records. It is now to be heard in all of our parks every day, its rich and varied songs adding a delightful touch to spring's return.

The winter just past has been, all told, a very mild one, a fact which may account for

the absence of several species ordinarily much in evidence, and, too, for the relative scarcity of other winter visitors, such as the Juncos. The Gray-headed Junco is still here at this writing, though in lessened numbers, and of the other more common Juncos, Shufeldt's was last noted on April 8. The Tree Sparrow departed for the North some time before April 9. There have been two or three lesser waves of Robin migration up to date, while the large waves are yet to come; this statement seems to hold true of Grand Junction also, though many Robins are reported as there at this writing. The Gray-headed Junco has departed from that region, doing so nearly a month ago, while, as said before, the species is still with us in Denver. I have seen no Pine Siskins hereabout, but they are now common on the western slope, and have been since April 9.

Even the last day of a season's report is never too late to make interesting observations; a short trip by motor today gave me a chance to see a considerable number of Shoveller Ducks on the Platte River, at a spot about 20 miles south of the city, and to have the satisfaction of being assured that a heronry in the same neighborhood is still in use. There were many Blue Herons in and about it, and I hope the several heronries on the Platte River, north of Denver, are also being reoccupied. Furthermore, this last day gave me a pleasant surprise in the shape of a male Williamson's Sapsucker flying into a tree in my yard. This is the first time I have seen this species within the city limits, and, so far as I know, it is the first record for the city.—W. H. BERGTOLD, *Denver, Colo.*

PORTLAND (OREGON) REGION.—While we usually have a few wintering Robins and Bluebirds with us, it is easy to detect the first migrant individuals. This season, February was cold, and the birds that did appear stayed in sheltered places until late in the month. The first week in February usually brings great numbers of these two species, but this year it was the 22d before they were noted in any numbers. Killdeer also appeared commonly on this date.

March 10, migrating flocks of male Northwestern Redwings and great numbers of

Brewer's Blackbirds appeared along the lower Columbia, while the first Northern Violet-green Swallows were noted on March 10. A pair of Brewer's Blackbirds (presumably the same individuals) build each year in a fir tree in my yard. This spring they appeared as usual and have been roosting in this tree since March 14.

On March 25, great numbers of Pintail, Baldpate, and Mallard Ducks were noted in the ponds along the Columbia, and one pair of Wood Ducks was seen. Audubon's Warblers were also common migrants on this date. The cottonwood fringe along the Columbia fairly swarmed with Gairdner Woodpeckers, there being more of these birds present on this date than I have ever noted anywhere else in one day. Northwest Crow flocks are partly broken up and mated pairs are much in evidence. Song Sparrows and Red-winged Blackbirds were particularly abundant.

On March 26, Savannah Sparrows appeared in the fields at the edge of town, and a pair of Violet-green Swallows, that build each year in a cornice at home, appeared and were noted inspecting the old nest.

On March 27, a great increase in numbers of White-crowned Sparrows was noted.

On April 1, another trip was made long the Columbia River bottoms. Oregon Vesper Sparrows and Rufous Hummers were noted as new migrants. A great decrease in the number of Mallards and Pintails and some decrease in the numbers of Baldpates was observed. Golden-crowned Sparrows, Nuttall's Sparrows, Fox Sparrows of at least two subspecies, Sitka Kinglet and Audubon's Warblers were conspicuous as migrants. One Myrtle Warbler was collected from a flock of Audubon's. A pair of Slender-billed Nuthatches was found in the willows, which is the first time I have noted them in this locality.

Desert Sparrow Hawks showed a great increase in numbers on April 4, and Pine Siskins, which have been abundant all winter, are still much in evidence.

Eight Wood Ducks were noted about a little pond near the Columbia on April 1. This is about the normal number of breeding birds for this piece of timber.—IRA N. GABRIELSON, *Portland, Ore.*

SAN FRANCISCO REGION.—The warm, dry weeks of late February and March seem to have had more effect upon the resident than upon the migratory species of birds. Though only a few definite nesting records are at hand, many slight incidents have been noticed which are significant. Many pairs of Bush-tits had withdrawn from the winter flocks by March 7, and on March 22, a walk through a wooded cañon revealed no flocks at all. Flocks of Juncos were not noticed after March 17, and a little later a nest was found by Mr. Dixon which now (April 13) contains young. During early February, Screech Owls were repeating their vows in soft tremolo notes in two different keys, while the Great Horned Owls continued the responses from March 16 to 29. On March 14, a pair of Thrashers began feeding from the same dish and have been apparently inseparable ever since. On March 15, the Pacific Yellow-throat was in full song in Golden Gate Park, and on March 21, a pair of California Chickadees were flying into a crack in a large eucalyptus tree. On March 19, a pair of Wren-tits were scolding some intruding Blue Jays in the fashion characteristic of the nesting period, and on March 22, half a dozen Hutton Vireos in as many parts of Wild Cat cañon were singing as regularly as if they had been wound up and then set going. Great Blue Herons were seen on their nests on March 27, and on the same day a pair of Black Phoebe were building on some timbers over a stream. A table where a flock of Quail had been feeding during the early spring was held by a single pair on April 5. Two days later, the call of the Quail 'on guard' was heard in the early morning. A Titmouse nest in an observation box contained seven eggs on April 13.

The dates of arrival of summer visitants so far recorded are: Allen Hummingbird, February 17; Lutescent Warbler, March 5; Pileolated Warbler, March 22; House Wren, March 27; Warbling Vireo, March 28; and Western Flycatcher, April 7. Cliff Swallows were seen on March 27 and April 12.

Winter visitants still present (April 13) are the Intermediate Sparrows which have been especially abundant since March 13, Golden-crowned Sparrows, White-throated

Sparrows (2 have been present all winter on the University campus and one was heard singing on April 13), Fox Sparrows, Cedar Waxwings, American Pipits (April 12 at Baumberg), Western Ruby-crowned Kinglets, and Dwarf Hermit Thrushes. Varied Thrushes were abundant in favorable localities until April 3. Western Robins are still more numerous than in summer, as are also Pine Siskins and Flickers. Crossbills were seen in Berkeley on February 23 and in Golden Gate Park on March 21. Band-tailed Pigeons were reported by the Audubon Association on March 11 in Marin County. Townsend Warblers were in flocks and singing freely from March 25 to April 8.

Mrs. Kelly reports that the Bonaparte's Gulls began to increase in numbers on the Alameda shore about March 15, the majority of them being in summer plumage by April 8. Forster Terns were seen on March 15 and April 8. Dowitchers began coming in on March 15 and have become very abundant. Red-backed Sandpipers have been present since February 25 but have been outnumbered by Western and Least. Sanderling have also been seen constantly, the number being largest on March 4. Marbled Godwits numbered 24 on March 25 (a hot day) and were very noisy; by April 8 they were 100 strong. Western Willets were most plentiful the first half of March and the first flock (24) of Hudsonian Curlew came on April 8. A few Black-bellied Plover have been present throughout the period, and many of them were in summer plumage after the middle of March. Two Snowy Plover were seen April 8.

The water-birds on Lake Merritt diminished in numbers rapidly after their loafing-places were opened to boating, on February 22. A count made by Mr. Dixon on April 8 showed a total of less than 125 Ducks, the majority being Baldpates. Eared Grebes numbered 15 and Coots 300. The one increase was of Snow Geese, the one lone bird of the winter having annexed a companion. Apparently the marked increase in the numbers of the Ducks on the bay was due to the desertion of Lake Merritt, for after February 22 many Canvasbacks and Scaup joined the Surf and White-winged Scoters.

A hurried survey of the ponds and salt pools at Baumberg on April 12 yielded very satisfactory results. The heavy rains of the first two weeks of April had provided plenty of fresh water. Every few moments flocks of several hundreds of Ducks rose with a great splash and whirring of wings and circled above us. Most prominent among them were the Shovellers, but Pintail, Baldpates, and Ruddies were also identified. About 17 Avocets, one Yellow-leg, many Western Sandpipers, and one Red-backed in full plumage waded about in the shallow water while Sanderling and a few Snowy Plover were very conspicuous on the dark colored mud of the banks. Horned Larks and Pipits were very tame, as were also the Brewer and Red-winged Blackbirds. In one slender eucalyptus tree was congregated an enormous flock of House Finches, all singing and chattering in the most excited manner. When disturbed, they flew out in such numbers that they reminded one of a swarm of bees. One could imagine it to be a great matrimonial bureau functioning for the whole of northern California. If so, business had already begun to show results for in a very loosely constructed nest nearby, from which the female had just been flushed, was a blue egg.—AMELIA S. ALLEN, *Berkeley, Calif.*

LOS ANGELES REGION.—The period under consideration has been, for the most part, typical of a 'dry winter,' with temperatures somewhat above normal, relative humidity very low, and with frequent winds from the deserts. No rain fell until April 1 and 2, when there were light showers, and April 9 and 10, very copious showers.

About the middle of February, accumulations of waste at fish canneries near San Pedro attracted immense numbers of Gulls to the region. Glaucous-winged and Herring Gulls were more numerous than is usual. In lagoons near the coast, Shoveller and Pintail Ducks were very numerous, and smaller numbers of Mallards, Baldpates, Green-winged, and Cinnamon Teal were also observed. Three Fulvous Tree Ducks, first recorded on February 28, near Playa del Rey, were again noticed on March 11 and 28. During the same period a lake in the Santa

Monica mountains afforded a different list, Mallards, Canvasbacks, and Redheads predominating. At the latter place, March 17, a Hooded Merganser was seen. By the end of March most of the Ducks and Gulls had disappeared from lake and shore.

Avocets, which were seen in shallow lagoons near Playa del Rey about February 15, have been present in varying numbers on each of nine dates, covering the period to April 6, the maximum number, 78, occurring March 17 (Mrs. C. H. Hall). With few exceptions, the Avocets seen were in summer plumage. The behavior of one pair, on March 13, seemed to point to possible nesting. The handsome male advanced to within a few feet of the party, beating its sides with powerful wing-strokes, with lowered head sweeping the bill from side to side, snapping the mandibles and uttering hissing sounds. Presently it was joined by a duller colored individual, taken to be the mate, the latter remaining a passive but evidently interested spectator.

At the same place, March 27, 15 Yellow-legs, 1 Wilson's Snipe, 25 Marbled Godwits, and a Snowy Egret were seen. The Egret allowed a close approach, so that all its distinguishing characters were well seen. It continued its walking and capture of small fish to within perhaps 75 feet of the five observers. Four Wilson's Snipe were seen the following day at another place.

On April 6, a Snowy Egret was seen in company with one American Egret.

February 22, an Albino Nuttall Woodpecker (now a mounted specimen in the County Museum) was found by Mrs. W. H. Martz and Mrs. Irving J. Mitchell. The black pigment was entirely suppressed, while the red persisted. Eyes were brown, bill and feet white. For a period of about three weeks it was an object of interest to many visitors to the bit of woodland where it was apparently at home and undisturbed by the watchers of its mode of life.

Fox Sparrows, which have been absent from the foothill regions all winter, were found by Mrs. Martz and Mrs. Mitchell coming to a dripping water-pipe, newly placed through dense chaparral in Griffith Park, on March 29. The following morning

the writer accompanied them to the place, where we watched for an hour or more, seeing about fifteen individuals come to drink or bathe. Two varieties were distinguished, representing, it was thought, the Thick-billed and Slate-colored groups.

It is thought that Lutescent Warblers have wintered in the chaparral in some numbers, as a song, believed to be attributable to them and not distinguishable from that of the species now here, has been heard throughout the winter. One individual was seen by the writer on January 28.

Rufous Hummingbirds arrived February 25 and became common after the middle of March. The Arizona Hooded Oriole came March 6; Allen and Costa Hummingbirds early in March. Violet-Green Swallows do not appear upon our lists until March 20, when the Warbling Vireo arrived. On this date the plain Titmouse had young in the nest, and a Golden Eagle was seen carrying a green twig into a crevice in the cliffs. March 17 and 18, Western Kingbirds were seen, becoming common within the succeeding few days. Cliff Swallows arrived March 21, when Mountain Bluebirds were last seen. March 24 brought the Least Vireo; March 25, the Lincoln Sparrow.

March 26, a Townsend Solitaire was seen in a cañon of the Sierra Madres, and on the same date one was found in Palm Cañon, on the desert side of the mountains. On this date also, the first Black-throated Gray Warbler of the season was noted. Lutescent and Pileolated Warblers are fairly common. April 1, a first sight record of Yellow Warbler, though its song was heard a few days earlier.

Three Ferruginous Rough-legged Hawks were seen on dry ranch lands where squirrels were abundant, on March 17. Resident birds that frequent such areas were abundant. Five Roadrunners were noted.

March 19. Large flocks of Band-tailed Pigeons were still in oak woods where first seen in the fall. Large flocks of Robins are still found feeding upon the berries of the camphor trees in Pasadena.

April 8, 10 Rufous Hummingbirds were about a thicket of Indian tobacco.—FRANCES B SCHNEIDER, *Los Angeles, Calif.*

Book News and Reviews

SIDELIGHTS ON BIRDS. AN INTRODUCTION TO THE STUDY OF BIRD-LIFE. By H. KNIGHT HORSFIELD. With a foreword by W. EAGLE CLARKE. D. Appleton & Co., New York, 1923. 8vo, 224 pages; 2 drawings, 17 photographs.

Here is a book which contains a great deal of interesting, readable information about birds. There are chapters devoted to their nests, eggs, the altitude and speed at which they fly, their migrations, senses, language and home-life, their place in art and literature, including the Bible.

The author's experience appears to have been largely confined to British birds and British bird-books, but even with this restriction he has had a wide field to draw from, and his material is well-chosen and attractively presented. One need not belong in the ranks of professed bird students to find one's attention closely held by these essays on bird-life.—F. M. C.

THE BIRD CLASSES OF THE AUDUBON SOCIETY OF THE DISTRICT OF COLUMBIA. II. 1913-22. Published by the Society. 8vo, 8 pages.

The Audubon Society of the District of Columbia has issued an 8-page pamphlet to commemorate the completion of the twenty-fifth year of its Bird Class. It includes a historical résumé covering the entire period and a more detailed report for the years 1913-22, the years 1898-1912 having been treated in an earlier publication. With the staff of the Biological Survey to draw upon, and a membership which includes a number of devoted bird students, this Society has an unrivaled corps of instructors, who have contributed their services to this admirable work.—F. M. C.

THE COMMON HAWKS AND OWLS OF CALIFORNIA FROM THE STANDPOINT OF THE RANCHER. By JOSEPH DIXON. Circular No. 236. University of California, College of Agriculture. 20 pages; ill.

It is evident that the writer of this pamphlet is familiar not only with his subject

but his audience. He presents his facts in an informal, interesting, readable way without too much detail and in a manner designed to hold the attention as well as to convince the audience he addresses. The specialist too often writes only for his colleagues and fails, therefore, to reach the very persons for whom his work is intended. The man who can concentrate on one subject, bending all his efforts to production in a restricted field, and still retain the viewpoint of the public-at-large, is the exception.—F. M. C.

THE PURPOSE OF BIRD CENSUSES AND HOW TO TAKE THEM. By MAY THACHER COOKE. Department Circular 261, U. S. Department of Agriculture. 8vo, 4 pages.

The contents of this leaflet are well explained by the title. It includes also a call for observers to make counts of the birds nesting in a given area. Volunteers for this work should secure a copy of this circular of instructions.—F. M. C.

The Ornithological Magazines

THE AUK.—In the April number, 'Some Aspects of the Group Habit among Birds,' by Charles L. Whittle, calls attention to the local units of which any widely distributed species must in many cases be composed. This is not a new concept, being a necessary corollary of the breaking up of species into local races in the diversified and isolated climates of our West, of the local variations in the song of a given species long noticed by field ornithologists, of the return of individuals to identical nesting-grounds recently corroborated by bird-banding. The return of individuals to identical winter quarters as well, recently discovered by bird-banding, naturally suggests the association of groups of migratory birds throughout the year, summer, winter and on migration but no satisfactory confirmatory evidence thereof is here presented. The article is

largely speculative in character, but should be useful in pointing out an interesting aspect of the problems of migration and distribution. It contains mention of two recent bird-banding items of considerable interest: a Song Sparrow banded at Cohasset, Mass., by L. B. Fletcher, July 6, 1922, retaken January 14 and 28, 1923, would appear to be a permanent resident individual. Results published from time to time in *BIRD-LORE*'s season report have shown summer resident and winter resident Song Sparrows for the New York region, and data reported has also indicated permanent resident individuals there, though none such, as complete as could be desired, has yet been obtained. In the Connecticut Valley, A. C. Bagg has retaken individual Tree Sparrows from a wintering flock in a succeeding year, showing a stability in personnel for that species at his station, from winter to winter, so far not brought out by trapping and banding records in the New York region.

'The Connecticut Valley. A Highway of Migration', by A. C. Bagg, sketches the scenic features of the Valley (illustrated with two full-page plates) and describes the northward and southward flights of birds following it as a highway of migration. What is said of the retreat of early spring migrants down the Valley when met by unfavorable weather, commands particular attention. Such retrograde movements are in most cases very difficult to prove.

'Blue Feathers,' by Bancroft, Chamot, Merritt, and Mason, explains the color of non-metallic blue and green feathers. White feathers ordinarily appear so because their particles scatter the rays of white light without modifying them. Non-metallic blue in feathers, so far as known, is also due to mechanical action, very minute pores in the walls of specialized cells being of a size to scatter and turn back the blue rays of white light and allow the orange rays to pass through. Such an arrangement is ordinarily associated with dark pigment so placed as to form a background for and bring out the blue advantageously. In green feathers the blue cells are overlaid by a translucent yellow layer, the color of which is of a chemical or pigment nature. This is a technical dis-

cussion, convincing so far as it can be followed by the lay reader.

Other papers of general interest are the conclusion of his study of the Black-crowned Night Heron by Gross, details of nest, eggs, growth and plumages, profusely illustrated from photographs; 'Bird Banding and Bird Migration Work at Rossitten on the Baltic Sea' by T. G. Ahrens, which describes the well-known German station that has been instrumental in determining what are the migration routes of European birds; 'Nesting of the Evening Grosbeak in Northern Michigan,' by J. S. Ligon (photograph of nesting tree and of a young bird). It is probable that a dozen pairs were nesting in one pine grove at Whitefish Point, and a few Grosbeaks observed in some pines half a mile away likely had nests there.

Allan Brooks writes of 'Notes on the Birds of Porcher Island, B. C.,' and G. E. Verrill, 'Rough Notes on the Avifauna of Paita, Peru,' a sketch of the general avifaunal features of this tropical desert coast as aside from detailed identification of species. Griscom and Huber have short systematic papers on neotropical birds, the latter author describing two forms, and Kuroda describes two new races of the Long-tailed Titmouse from Japan and Korea. Mrs. Reichenberger calls attention to different methods of measuring birds with a view to the advantage of having some uniform international method.

General Notes contain, as always, many items of faunal interest, and in this case discussion of several nomenclatural points. Stoddard concludes that the Northern Phalarope is not uncommon in flocks off shore on southern Lake Michigan in August and September. Swope finds that *BIRD-LORE*'s Christmas Census shows a large increase for the Bob-white in Ohio after seven years of no shooting. There is a report of Richardson's Owl at Cohasset, Mass. (H. G. Whittle), and Plattsburg, N. Y. (S. C. Bishop), the past winter, which may be of interest to bird students of New York and New England who have considered this species too northwestern to be even a remote possibility in their region. Latham reports a breeding Red-breasted Nuthatch from Long Island.—J. T. N.

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Bird-Lore's Motto:

A Bird in the Bush Is Worth Two in the Hand

A WELL-KNOWN writer of popular nature stories, who imposes on himself so high a standard of accuracy that his audience is not only interested but instructed, described to us the other day his one and only experience in 'broadcasting' from a radio station. He chose for his subject a portion of his most successful lecture, and cheerfully and with animation he began to address his unseen audience. All went well until he reached the first point at which he was accustomed to receive applause, when he unconsciously waited a moment for the response that did not come. After this had happened several times, he found himself speaking as mechanically as a phonograph, and, at the conclusion of his task, he uttered an emphatic "Never again."

The application of this incident lies in our belief that between broadcasting and editing a magazine there exists a strong similarity. Issue after issue the Editor, through his own pen, or that of his contributors, addresses an unseen and, as a rule, unresponsive audience. An apparent or actual error is promptly called to his attention, but he can assume that he has won the approval of his readers only by their failure to criticize. Criticism we welcome, particularly if it be constructive, but we confess also to a desire for commendation. Quite frankly, we ourselves believe that BIRD-LORE presents to its readers articles both entertaining and helpful which are deserving of enthusiastic praise. Where in all the literature of ornithology will one find, for example,

such detailed information in regard to the dates at which certain birds migrate, as Dr. Oberholser presents in every other issue of BIRD-LORE? In what other publication is there such a review of affairs in the bird world, from the Atlantic to the Pacific, as may be found in every issue of BIRD-LORE? Where else can be found so attractive and informing series of walks and talks with birds as Dr. Allen contributes number after number?

The latter query prompts us to say parenthetically that the illustrations which accompany Dr. Allen's article in the current number are, in our opinion, to be ranked among the best photographs of birds which BIRD-LORE has ever published; and while we are in this mood of self-praise, we may add that this is equivalent to saying the best we have ever seen anywhere. We base this statement, not on their technical excellence, but rather on their presentation of the characters of the species they represent.

BIRD-LORE's life is practically co-extensive with that of successful bird photography in this country. Approximately 3,000 photographs of birds have appeared in our pages. What a store-house of authentic, graphic information regarding the appearance of birds in nature is contained in this series of illustrations! Where does anything comparable with it exist?

Were it not proper that editors should themselves be governed by the same restrictions in regard to the use of space that they impose on their contributors, we might continue indefinitely to describe BIRD-LORE's many excellencies. Some one, we are convinced, should pay a tribute to them, and, if no one volunteers to fill the part of eulogist, we will take it ourselves. At least we must be permitted a word to express our own unbounded admiration for BIRD-LORE's colored plates, drawn by the country's leading bird artists, and reproduced regardless of expense by her foremost engravers. By the end of the present year we shall have figured in color the male, female, and immature plumages of every species of North American passerine bird, and this alone is an achievement well deserving of commendation—even of our own.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by A. A. ALLEN, Ph.D.

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DAISY FIELDS IN JUNE

By A. A. ALLEN

With Photographs by the Author

Where daisies and buttercups vie with the clover and timothy for possession of the farmer's hay-field, there lives a group of birds quite as distinctive and just as restricted in their distribution as the birds of the marshes which we discussed in the last number of *BIRD-LORE*. Some of them, like the Meadowlark and the Bobolink, are known to every farmer's boy, and are as much a part of his life as the hay and the grain and the dusty road to school. But others, less conspicuous, like the Vesper, Savanna, and Grasshopper Sparrows are lumped together by him under the common appellation of 'ground bird.' Still others, like the Henslow's Sparrow, pass entirely unnoticed, their weak voices mingling with the myriad insect notes. There are many birds that are occasionally found in the open fields in search of food or by mere chance, but the ones that make up the 'open-field community' are those that not only get their food there, but nest there also and spend practically their whole lives away from the bushes and trees. Naturally, they often fly to the top of a bush or tree that stands in the field, for it makes a conspicuous singing-place, but a fence-post or a bare telegraph pole suits them just as well, for there is nothing in a tree that is particularly attractive to them. Let us, then, direct our steps, in this number of *BIRD-LORE*, along some country road until we get away from houses and barns and bushes and trees and come to the extensive fields of clover and daisies. It will be better if we search out some field that has not been plowed for several years, where the hay is less dense and the 'weeds' more numerous, for this is the type of field that these birds like the best.

As we trudge along the dusty road (and it will be much better if we leave automobiles and paved roads behind us), certain birds will be quite conspicuous. There will be Swallows on the wires, Red-headed Woodpeckers or Flickers on the telephone poles, Kingbirds and Wood Pewees in the apple trees, and Goldfinches on the dandelions by the wayside, but none of these birds belongs to the community that we are out to study and we pass them by. It is only when the plaintive whistle of the Meadowlark reaches our ears that we begin our study of the birds of the open fields. "It's sweet to me," he seems to call, and we assume that he means life in the open, and we are thoroughly willing to agree with him. If we approach the vicinity of his nest, his note changes and, though

still plaintive, it is only about half as long, as though he were calling to his mate "beware." It is not until we leave that we hear his full song again, and then it sounds to us as though he were calling "All is well."

One familiar only with the plaintive song of the Meadowlark will have difficulty in recognizing the various harsh call-notes and a rather pleasing rattle as originating from the same bird. Ordinarily, the Meadowlark sings from a fence-post or the top of a tree in the open, but, occasionally, in a burst of enthusiasm, he mounts upward in the air on quivering wings and repeats and modulates his song until it is scarcely recognizable. At such times it resembles more the flight-song of the Western Meadowlark, which never sings as simple a refrain as our eastern bird.

It is no easy matter to find the Meadowlark's nest, but the task grows simpler if we have learned the bird's vocabulary, or at least some of the alarm-



MEADOWLARK AND ITS DOMED NEST

notes by which it is possible to guess the general vicinity of the nest. Then, if we withdraw to a distance, until the male no longer indicates alarm by his voice, and watch him through glasses, he will, sooner or later, fly down to visit his mate at the nest. Even then, however, it is no easy matter to find it, for it is roofed over with grasses and has the opening on one side. I have known careless persons actually to step on the eggs before discovering the nest. After the eggs have hatched, the roof does not last long, and by the time the young are half-grown the nest is usually as open as a Bobolink's or a Vesper Sparrow's.

Examining a Meadowlark in a museum, or observing the bright yellow breast on any colored plate of the bird, one would think that this would be a conspicuous mark in the field. On the contrary, one has to be close to see it, or the bird has to be in full sunlight. At other times, the yellow is entirely ab-

sorbed by the greens and browns of the grasses, and the bird appears uniformly brownish. It is the conspicuous white outer tail-feathers that make the best field-mark, appearing as two square white patches as the bird flies away.

As we approach the daisy field of our choice, a small grayish bird runs ahead of us in the road, awaits our approach, and then flits along a little farther. It is about the size and shape of a Song Sparrow and has the same streaked breast, with a larger spot in the middle, but it is a grayer bird, and when it flies it usually, but not always, shows white outer tail-feathers. It is the Vesper Sparrow, one of our birds of the open field. We often find Song Sparrows along



VESPER SPARROW AND NEST

the roadside, also, but never far from bushes or brush-piles in which they can take refuge when frightened. The Vesper Sparrow, on the other hand, when alarmed, flies up and away through the open. The songs of the two birds are also somewhat alike, though that of the Vesper Sparrow is usually clearer and sweeter and ordinarily begins with two low notes, and then two high notes followed by a trill. It might be expressed by the phrase "Listen to my evening singing." The Song Sparrow's song is less clear, usually begins with three low notes followed by one high, one low, and a trill, and can often be fitted to the phrase "Hip hip hoo-ray, boys, spring is here." There is a third bird that resembles the Song and the Vesper Sparrow in color and markings, the Savannah Sparrow, another of our field birds. It has the same streaked breast with a larger spot in the middle, but its tail is shorter and it has a fairly conspicuous yellow line over the eye and less conspicuous ones below the eyes and through the middle of the crown. Its song, however, is entirely different having more

of an insect quality. It usually begins with two low *tsips* followed by a high trill and a shorter lower trill which might be represented *tsip, tsip, see, ee, ee, me-ee*. The Vesper Sparrow and the Savanna Sparrow are a good deal alike in habits, both building cup-shaped nests in slight hollows in the sod, but the Vesper Sparrow usually prefers more open places in the meadow, often nesting by the roadside where there is some bare ground, while the Savanna as often as not selects a place in the thick clover.

In addition to the Vesper Sparrow, there is another bird that we may see running in the roadway ahead of us, the Prairie Horned Lark. The Lark is somewhat larger than the Vesper Sparrow, less streaked on the back, and more



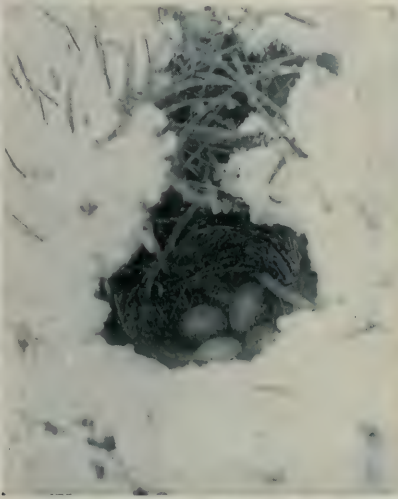
SAVANNA SPARROW AND NEST

of a pinkish brown in color. Its most distinctive characters, however, are the black markings about its face; the crescent on its breast, the broad bar from the bill to its cheeks, and the narrow line of feathers bordering the crown, which can be elevated on either side so as to form tiny 'horns.' The markings are more conspicuous in the male which, likewise, has a yellower throat.

The Horned Larks are the first birds to come back in the spring to the northern states, if they have not spent the winter there, often arriving early in February. By the middle of March they are often nesting, so that the incubating or even the brooding bird may get covered by the late snows. The most interesting thing about the Horned Lark, however, is its habit, in common with the European Skylark, of soaring. Starting from the ground, often at one's very feet, the male bird mounts upward on a giant spiral until it is almost out of sight. Then, as a tiny speck in the blue, it hovers and sings. The song

is not at all comparable with that of the Skylark, made famous by the poets; indeed, it sounds more like some one climbing over a wire fence, but the performance which follows is fully as thrilling as that of its European cousin for, closing its wings, the Lark plunges headlong towards the earth. Like a plummet it drops; for hundreds of feet it plunges unchecked until within but a few feet of the ground, where, ever so gracefully, it spreads its wings and shoots abruptly forward, checking its momentum and alighting as though nothing had happened.

Now we have come to the field, white with daisies and spotted with black-eyed Susans and devil's paint-brush—a poor hay-field but a very good place for the birds of the open country. Two or three Bobolinks are chasing



PRAIRIE HORNED LARKS AND NEST FROM WHICH THE INCUBATING BIRD HAD JUST BEEN FLUSHED AFTER A SNOWSTORM

each other about the field, making it resound with riotous song, a grand medley of warbles and banjo-like notes that can be confused with nothing else. The cream and gray and white spots on their upperparts all appear white at a distance and reflect, in turn, the white of the daisies, their black underparts appearing as nought but shadows. We see nothing of the Sparrow-like females that are sitting close on their nests, but, if we should, it would pay to watch them until they fly to their homes, for the Bobolink's nest is just as difficult to discover as the Meadowlark's, though it is not roofed over. The thickly spotted eggs are far from conspicuous, especially when the nest is placed in the dense grass or clover. The birds never fly directly to or from their nests, but, ordinarily, traverse the 10 to 15 feet nearest the nest on the ground, and out of sight of marauding eyes. So even if you mark exactly the spot where the female flies down, it may take you a half an hour to locate the nest.

As we listen to the ecstatic outbursts of the male Bobolinks, it is difficult

for us to believe that within a few weeks they will be silent or, at best, announcing their presence by only a metallic *pink*, and that they will change their striking black-and-white suits for the somber clothes of the female. Then, better known as 'Ricebirds' or 'Reedbirds', they will start on a 5,000-mile journey to Brazil and northern Argentina. They seem so devoid of care and so absolutely satisfied with their present environment that one naturally thinks they might stay until the frosts seared the meadows, but, instead, they will scarcely



A PAIR OF BOBOLINKS AND THEIR HOME

wait until their young are strong on the wing before flocking to the marshes and starting on their southward flight.

Such a medley of sounds arises from the Bobolinks that we might easily suppose that there were no other inhabitants of the daisy field, but if we can close our ears to their voices, we will soon become aware of many lesser folks adding their bit to the general concert. Were we not already familiar with the song of the Savanna Sparrow, we might attribute all of the tiny trills that we hear to the crickets and grasshoppers; but, having once learned what to listen for, we can soon pick out the songs of three or four of these little short-tailed Sparrows, and perhaps locate the birds perched on the top of some of the taller weeds, their heads thrown back and their little bodies aquiver with all the enthusiasm of their more musically endowed cousins. If we know just what to listen for, we may be able to pick out the song of a Grasshopper Spar-

row among them or off to one side of the field. It is only about half as long as the song of the Savanna Sparrow and of even more insectlike quality, lacking entirely the second and lower trill of that bird: *tsip, tsip, see-eeee*.

If the Grasshopper Sparrow did not sing, or if he sang from the ground, he might never be discovered, so inconspicuous is he; but, like all other birds, his song, such as it is, is an announcement to the world and all other Grasshopper Sparrows that a certain part of the field belongs to him and he will brook no intrusion. Therefore, while making the announcement, he wants to be as conspicuous as possible, and he flies to the tallest weed or fence-post within his territory. At other times, he runs around mouse-like on the ground and is never seen unless flushed, and then but for an instant, for he never flies far before dropping back into the grass. After the nest is started, the male seldom ventures very far from it, so that it is comparatively easy to mark the general location of every nest in a field. It is not so easy to find the nest, however, for it is roofed over like a Meadowlark's, though the whiteness of the eggs catches one's eye much sooner than the eggs of the Savanna Sparrow or the Bobolink, which are gray and heavily marked with brown. In all of the accompanying photographs it should be remembered that the vegetation has been pressed aside from the nest so as to make it and the eggs as conspicuous as possible. It seems more than a coincidence, however, that the field birds that lay conspicuous eggs build roofs to their nests.

If one has difficulty in finding the Grasshopper Sparrow, he might as well never start hunting for the Henslow's Sparrow, for both in song and habit it is as much less conspicuous than the Grasshopper Sparrow than the Grasshopper is less conspicuous than the Savanna. I have never heard of anyone discovering it for the first time all by himself, though after his attention has been called to it he may discover it in some of his most familiar hunting-grounds. It seems to prefer the oldest and most run-down fields, though occasionally a little colony gets started in a good hay-field, alongside of the Savanna and Grasshopper Sparrows. An entomologist listening for unusual insects is more likely to discover this bird than an ornithologist with an ear attuned to bird-voices. *Tisape . . . tisape*, its call sounds to me, usually with quite an interval between the syllables. More than likely each dissyllable *tisape* represents the bird's complete song, and, if so, it is the most unpretentious effort with which I am familiar, comparable only with the voicelessness of the Anhinga and Frigate-bird.

After one has learned the song of the Henslow's Sparrow, he will be able to pick out the bird in the field from among the Grasshopper and Savanna Sparrows by its more conspicuous whitish bill and the faint streaks on the sides of its breast, and it will give him no small degree of satisfaction to identify it, though it may not add materially to his esthetic enjoyment of the daisy fields in June.

The nest of the Henslow's Sparrow resembles that of the Savanna, but the

eggs are white, rlike those of the Grasshopper Sparrow, though more heavily spotted.

We have enumerated but seven birds as composing the open-field community and, indeed, they are the most typical members in the northern and eastern states, though we might include the Bob-white, the introduced Pheasant, the Killdeer, and even the Spotted Sandpiper, were we to list the birds that nest in the fields away from bushes. They spend so much of their lives in other



Left.—HENSLOW'S SPARROW (NOTE THE WHITISH BILL AND LIGHT STREAKS ON THE BREAST)
Right.—GRASSHOPPER SPARROW ON THE ROOF OF ITS DOMED NEST

environments, however, that we may well exclude them from our 'community.' Further south or further west there would naturally be other or different members of the community, but wherever one finds the open fields, he will find a circumscribed group of birds designed by nature to live and derive their sustenance therefrom.

SUGGESTIONS TO TEACHERS

There is, perhaps, no group of birds more accessible or more easily studied with a class than the birds of the open fields. They are not ordinarily very timid, and when frightened usually fly through the open where they can be followed. They often frequent roadsides where they become accustomed to people passing and sit on the fences or telephone wires where they can be

readily observed, even by large classes of children. If it seems desirable to find their nests, it is easier with a class than in any other way, for, by joining hands and forming a long line, it takes but a few minutes to cover the entire field and flush the incubating birds from their nests. Great caution should be used, however, to walk slowly and watch the ground at one's feet, so that a nest will not be stepped upon. Indeed, unless every one of the bird class is seriously interested and naturally cautious, it is better not to hunt for the nests in this way. It is better to sit down where the birds can be watched, and when they have been observed to fly to the same spot several times, send one or two of the most cautious to find the nest while the rest continue to watch the actions of the birds. More can be learned on every bird-walk by ceasing to walk when the desired place has been reached than by trying to follow the birds. Observe where the birds are singing when you first arrive, and then seat the class in the most advantageous place and wait for the birds to come back or resume their former activities. Success will depend upon the quiet the teacher is able to maintain.

It is a good idea to make a map or diagram of the field or fields under observation and place on it each time the general location where each bird is heard singing. It will soon be evident that different parts of the fields are always frequented by certain birds, and it might be possible to divide up the field into so many 'claims' or 'territories,' with not more than one pair of a kind in each territory. Copies of the map could be distributed to each member of the class, with the instructions to make several visits to the region and mark each time the singing-place of each bird. In no better way can the importance of 'territory' in bird-life, the attachment of a bird to its nesting-site, and its methods of securing a suitable area in which to rear its young, be learned. The relation between the nesting-area and the feeding-area in the different species might likewise be brought out; some, like the Savannah, Grasshopper and Henslow's Sparrows, feeding in the same area in which they nest, and others, like the Meadowlark, Bobolink, and Vesper Sparrow, often finding their food at a considerable distance.

SUMMER BIRD-STUDY

The time has come again to remind teachers and others who are desirous of getting a good grounding in ornithology, either to assist them in their teaching or for their own pleasure, that the opportunity awaits them this summer in many of the university, college, or other summer schools. It is perfectly possible to combine ornithology with some other course in any of these summer schools, or, in many of them, to devote one's entire time to the study and receive university credit for it. The School Department of BIRD-LORE endeavors to maintain a complete list of the summer courses in ornithology, and the Editor will be glad to assist anyone, planning summer study, with the information which he has,—A. A. A.

FROM YOUNG OBSERVERS

PRIZE ESSAYS

A good way of stimulating interest in birds, and at the same time combining bird-study with the language lessons in the elementary grades, is by the writing of prize essays. Such a contest was held recently in the sixth grade in Big Rapids, Mich., and we take pleasure in printing the prize essay written by Caroline Morris as a sample of what might be done in other schools and what might be expected in the sixth grade.

BOB-WHITE

Length, 10 inches. Known everywhere by its clear call, or which it is named.

Its natural dwelling is in the United States, east of the plains, but is known in many places in the West.

It builds its nest on the ground and under bushes, brush-heaps, and along the roots of trees.

The Bob-white is loved by everyone in the country and the hunters know it better than any other game-bird in the United States. Some people raise them in captivity. The food of this bird consists of seeds, grain, and wild fruits.

It is a great friend of the farmers, as it eats some of the insects that are serious pests to him. Every farmer should see that the Bob-white is protected.

A few years ago there was a law made in this state that the Bob-whites should be protected and that no one should hunt them as game.

The male calls "Bob-White, Bob-Bob-White" and the female answers in a way that sounds like this: "I'm over here, I'm over here, I'm over here."

AN ACTIVE JUNIOR AUDUBON CLUB IN GRANT SCHOOL DES MOINES, IOWA

Our Club has held its weekly meetings regularly throughout the past two school years. Lately we have been studying the spring birds; before that we studied winter-feeding.

Professor Ross, of Drake University, visited us one afternoon lately and showed us lantern slides of our Iowa birds, and told us about them and their value, as he went along.

Our teacher brought us a Goldfinch's nest lined with her mother's hair.

Our meetings last about three quarters of an hour and are held after school. Our officers are Clayton Boggess, President; John Stokeley, Vice-President; John Butler, Chairman of Committee; and Dorothy Cavett, Secretary.

In the past year we have noted an increase of winter birds in our part of town. We have had very good attendance at our meetings—from thirty-five to fifty-five—and all are enthusiastic.

Our Club is going to put up a bird-bath on the school-grounds, and plant a little shrubbery about it, in order to make a spot attractive to the birds.

We have also appointed half a dozen of our members to be bird-detectives in our part of town. Their duty will be to see that the birds are not molested by girls and boys, and to teach them the value of our song-birds.—DOROTHY CAVETT, *Secretary*.

A SUCCESSFUL BIRD-HOUSE AND WINTER FEEDING COMPETITION IN MISSOURI

Last spring (1922), the children in the seventh and eighth grades of the Webster Groves schools, as part of their manual training work, made bird-houses and shelter-sheds. Three members of the 'Bird Section' from the 'Nature Study Society,' were asked to act as judges of the best houses made. The Parent-Teacher's Associations, in the various schools, gave prizes to the children doing the best work. The workmanship and enthusiasm displayed by the children was wonderful, but many of the houses were absolutely useless as bird-homes.

For this reason, the 'Bird Section' decided to conduct a contest, open to children of any age, for attracting birds. After a great deal of thought on the part of the Committee, instructions were printed and rules were given to the children. Members of the Society went to the four schools in Webster Groves and tried to interest as many children as possible. At the end of summer an open-air picture show and party was held on the lawn of one of the members, and the prizes awarded to the children who had made the largest number of points.

As so many children in this climate go away for the entire summer, it was decided to hold another contest for 'Winter Feeding.' The suggestions and rules were again formulated for this contest and distributed to the children. One member of the Parent-Teacher's Association was asked to serve in each school, to help organize the children, and to give them copies of the rules. Then the Superintendent of our schools also had the rules printed and given to all the children in the upper grades, and in one school, the teachers are keeping account of the points made by each child.—ELEANOR HALL MARTIN, *Webster Groves, Mo.*

HERONS OF THE UNITED STATES

By T. GILBERT PEARSON

The National Association of Audubon Societies

BULLETIN NO. 5 (PART III)

LOUISIANA HERON (*Hydranassa tricolor ruficollis*)

DESCRIPTION.—The plumage of the Louisiana Heron contains almost as great mixture of colors as that of the Great Blue Heron. Generally, at a little distance the bird looks grayish or slaty above and very light beneath. By referring to the accompanying picture (Plate No. 3, Figure 1) one may get a pretty accurate idea of its markings as drawn by Fuertes.

Even for a Heron the bird is very slender. It is 26 inches in length, thus being 4 inches longer than the Little Blue Heron, but probably does not weigh any more. Many observers have been deeply impressed with the grace and ease displayed by the Louisiana Heron as it wades about the margins of swamps or ponds searching for its food. Audubon wrote that he always called it "The Lady of the Waters." It flies with its neck drawn in in characteristic Heron fashion.

Like most other Herons, its back is adorned with long plumes, and in the breeding season the nuptial feathers, several inches in length, protrude from the back of its head.

RANGE.—The Louisiana Heron today is known to breed from the coast country of North Carolina (Craney Island, Carteret County) southward along the coastal country through Florida and in many points in the West Indies. I have found them breeding in the state of Mississippi, also commonly in Louisiana and the Gulf Coast region of Texas. They are found along both coasts of Mexico and as far south as Central America.

Like some of the other Herons, they frequently wander north in the summer and have been seen as far up the Atlantic Coast as New Jersey and Long Island. As a breeding bird, the Louisiana Heron appears always to be gregarious. I have never found a case where a pair of them was breeding singly, like we sometimes find the Green Heron. Very often they nest in company with Snowy Egrets, Little Blue Herons, and Black-crowned Night Herons. In fact, they are so sociable in their nature that, with rare exceptions, they appear to be always associated with other Herons during the breeding period. On April 7, 1923, I found a company of twenty-four with a small breeding colony of Reddish Egrets in a clump of mangroves in the barren wastes near the southern end of Andros Island in the Bahamas. It is the most abundant species of Heron in the marshes along the Gulf Coast of Mississippi and Louisiana. Here I have found them breeding with no other Heron present except the Black-

crowned Night Heron. In some of these islands the nests are in low bushes. Scattered among them, Laughing Gulls breed in the grasses between the bushes. On such occasions, when a flock of these black-headed white Gulls and the splendidly colored Louisianas rise, a striking and unusual picture of bird-life is presented. They breed in places clear across the peninsula of Florida, but, as a rule, are chiefly coastwise birds, being extremely abundant in salty, brackish marshes of the seacoast.

GENERAL NOTES.—The food of the Louisiana Heron consists very largely of minnows, small frogs, and water insects. Apparently it rarely, if ever, takes vegetable food, or, if such is the case, it appears not to have been reported. The nests are usually in bushes or low trees. I have never found them breeding at a great distance from the earth, as is sometimes the case with the Egret and Great Blue Heron. The eggs are generally four or five in number, although I have seen as many as seven in a nest. They are the general Heron blue, but show a tendency to run somewhat paler than those of the Little Blue Heron, which they otherwise very closely resemble.

YELLOW-CROWNED NIGHT HERON (*Nyctanassa violacea*)

Here is another Heron rarely seen in the northern states. It has been known to breed in Lower California and on the Atlantic Coast as far north as South Carolina. It goes up the Mississippi Valley country, to some extent, as far as southern Illinois or Indiana. From here it occurs southward through the West Indies, Mexico, and Central America to Brazil and Peru. It may, therefore, be considered largely a tropical and subtropical species. Apparently, little has been written about this interesting bird. Its breeding habitat is not often visited by bird students. It is also a more secretive bird than its close relative, the Black-crowned Night Heron. Common in certain regions of Florida, one may find here and there small sequestered ponds, perhaps not more than 100 feet across. Here, where the bushes grow tall and thick and the shadows of the heavy forest crowd in on every side, Yellow-crowned Night Herons like to build their nests and rear their young. I have never found them nesting except in colonies. If associated with other Herons, they usually occupy a small, densely shaded area by themselves. Often there are no other Herons around. Here, throughout the day, the birds sit on their eggs or watch their newly hatched young, going forth for food when the shadows of evening approach.

In the maple trees bordering the lower reaches of the Kissimmee River, in southern Florida, I found the Yellow-crowned Night Heron very abundant during the last days of March and early April, 1923. They were drowsing away the hours in the little clumps of trees bordering the river bank, and as our boat came down the stream they would fly away in straggling flocks. At times as many as forty to fifty would be in sight at once.

As will be seen by the accompanying illustration (Plate No. 3, Figure 2), the bird has a long plume extending from its head while it bears its breeding plumage. The young bird, the first year (Plate No. 3, Figure 3), is very different in appearance from its parent. Little appears to be definitely known of the food of this bird, although it undoubtedly consists of the small water-life, such as is fed upon by most species of Herons.

The nests are made of sticks and twigs and usually are larger and better constructed affairs than are those built by any of the other small Herons. Five is the usual number of eggs in a nest, although many contain four and others holding six are frequently seen.

BLACK-CROWNED NIGHT HERON (*Nycticorax nycticorax nœvius*)

Undoubtedly, more has been written in our ornithological publications regarding the distribution and habits of the Black-crowned Night Heron than any other species of the family. It is a common bird throughout many of the northern states, and many of its breeding colonies are known to bird-students, as, for example, the colony near Roslyn, L. I., and the one in the bushes among the Barnstable sand-dunes on Cape Cod. This species is not so much wedded to tropical countries as the other Herons we have been discussing. During the winter, when snow lies upon the earth, I often see them flying by my home in New York City as they go to and from their feeding-grounds on the Harlem River. In the Bronx Zoölogical Park, they may be seen, I suppose, any day of the year. They gather in the trees over the flying-cages, and I have counted as many as 90 roosting at one time in trees around one of the ponds in the park. They are found generally throughout North and South America, and breed from Nova Scotia, Quebec, and Manitoba southward to Patagonia. Over most of New England they disappear in winter, undoubtedly because of the freezing up of the water covering their feeding-grounds. Night Herons eat frogs and fish and water insects. They feed during the day, especially if it is a little cloudy. At Cold Spring Harbor, L. I., I remember watching with great amusement the actions of Night Herons contending over eels. A bird that succeeded in catching one of these slippery fish would attempt to get away from his neighbors, with the result that he had a busy time flying with a squirming eel in his bill while swiftly pursued by his eager friends.

It is not uncommon, especially in the northern states, to find the Black-crowned Night Heron nesting in colonies by itself, although at times it is associated with the Great Blue Heron. In company with William P. Wharton and E. H. Forbush, I visited such a combined Heron city on Bradbury Island, Maine, some years ago. Farther south, however, where other species of Herons are abundant, the Night Heron is usually found in the general Heron colonies. Both the Night Herons are quite noisy when disturbed and fly away with vigorous wing-beats and startled squawks.

Young Black-crowned Night Herons (Plate 3, Figure 3), except in shape, are totally different in appearance from the adult bird, and are covered with white spots similar to the young Yellow-crowned Night Heron, although the general ground-color is noticeably different. In some sections of the country, these birds are killed and eaten, not only by our omnifarious emigrants from southern Europe, but by some of our own native population as well. The flesh, however, is strong and fishy and cannot be highly recommended. The Creole population of southern Louisiana are very fond of them, and much pressure has been brought to bear, of recent years, to get the Federal Government to take protection from the Night Herons in that territory so that the natives may continue to have feasts of their beloved *Gros-becs*.



BLACK-CROWNED NIGHT HERON, MALHEUR LAKE, OREGON

Photographed by Finley & Bohlman

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by T. GILBERT PEARSON, President

Address all correspondence, and send all remittances, for dues and contributions, to the National Association of Audubon Societies, 1974 Broadway, New York City. Telephone, Columbus 7327

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FORM OF BEQUEST:—I do hereby give and bequeath to the National Association of Audubon Societies for the Protection of Wild Birds and Animals (Incorporated), of the City of New York.

PROTECTING THE FLAMINGOES

In the summer of 1904, Dr. Frank M. Chapman made his notable expedition to southern Andros Island, in the Bahamas, for the purpose of photographing the breeding group of Flamingoes. He also gathered material which later was used to make the magnificent habitat group of these birds in

the American Museum of Natural History. Dr. Chapman estimated there were about 4,000 birds in the colony. There was no law protecting them, and the natives frequently engaged in killing and eating the birds. As result of his protests, coupled with those made at his behest by the National Associa-



NESTS OF THE FLAMINGO

Section of the group of 1040 nests built by the Flamingo colony on Southern Andros, Bahama Islands, in 1922
Photographed by T. Gilbert Pearson



COMMISSIONER E. W. FORSYTH, OF SOUTH ANDROS ISLAND, ONE OF HIS COLORED FLAMINGO GUARDS AND THE PALM-COVERED SHELTER OCCUPIED BY THE WARDENS IN 1922

Photographed by T. Gilbert Pearson

tion to the Bahama Government, a law was enacted making it illegal to kill this unusually interesting bird. Little attention, however, was paid to the law, and no adequate provision was made for its enforcement. Early in the year 1922, Dr. L. A. Sanford, of New Haven, visited Andros and was aroused when he learned of the continued slaughter of the Flamingoes. He appealed to the Governor of the Island, Sir Harry Cordeaux, and the Government made of southern Andros a bird sanctuary and provided some funds for guarding the colony that year.

The writer recently visited this territory and found that the colony that Dr. Chapman had estimated at 4,000 had been reduced to about 2,000. He also learned there was sup-

posed to be another colony about half this size near the northern end of Andros, perhaps fifty miles away. Conferences were held with Governor Cordeaux, and the Bahama Parliament is now being asked for an appropriation of £220 with which to protect both colonies of Flamingoes this season. This work is in charge of E. W. Forsyth, Commissioner of Andros Island, to whom the National Association recently sent \$300 to be used in making small patrol boats to be used by their wardens this summer.

It is to be most earnestly hoped that the Bahama Parliament will make the grant asked for by the Governor, so that the slaughter of these magnificent creatures may be permanently discontinued.

LAST DAYS OF THE HEATH HEN

For many years the attention of the public has been drawn, from time to time, to that remnant of the eastern form of the Prairie Hen, known as the Heath Hen, which now exists only on the island of Martha's Vineyard, Massachusetts. Members of the Audubon Society and others combined some years ago to purchase a reservation where these

birds might live in safety. The state of Massachusetts took a commendable interest in the preservation of the birds, and, at considerable expense, has since guarded them on that Vineyard reservation.

On February 14, 1923, the bird-lovers of the country were electrified by a questionnaire sent out from the office of the Department of

Conservation in the state of Massachusetts by William C. Adams, Director of Fisheries and Game, who set forth a statement that the birds are decreasing rapidly, that the species would never be valuable as a game-bird, and frankly put the question as to whether the state should continue the expense of seeking to preserve a vanishing species of birds when the territory might very well be stocked with Pheasants and Quail and used for hunting purposes.

Representing this Association the writer immediately forwarded to Mr. Adams the following letter:

Dear Mr. Adams:

I have your extremely interesting and eminently fair presentation of the Heath Hen situation as presented in your letter of February 14. I can understand that in all probabilities a good deal of pressure has been brought to bear throughout the years to make arrangements for the public shooting of Pheasants and other birds on Martha's Vineyard.

However, let me draw your attention to the fact that during these same years what we might call a sentimental interest in birds has likewise enormously increased, and no place is this more apparent than in the state of Massachusetts. Members of this Association assisted financially in the original work of getting hold of the land for this purpose, and, of course, we have always been intensely interested in this undertaking. I am sure we will be ready to contribute again if necessary.

If it were in my power to dictate the policy, I would say that everything possible should be continued to give a home to the Heath Hen as long as there is one left on Martha's Vineyard. I would continue the Cromwell lease, I would not permit the liberating of Pheasant on the island, and I would do everything in my power to keep these birds alive just as long as possible.

It would make a terrific crash on the minds of the people of this country should they realize in a few years that the Heath Hen had gone and that the Massachusetts Department of Conservation, yielding to the demands of the hunters, had in the meantime done something that could be regarded as lessening the chances of the Heath Hen continuing to live and flourish.

These are the thoughts that arise in my mind on reading your letter.

Yours most cordially,

(Signed) T. GILBERT PEARSON,
President.

Many other letters of similar nature were filed. The result has been that under date of

April 19, 1923, the following circular letter was issued by the State Conservation Department of Massachusetts:

As one of those who answered our questionnaire relative to the Heath Hen, we give you the following statement:

In order to discover the public sentiment with respect to the protection of this bird, and in order to receive suggestions relative to future work, we sent a statement and questionnaire (with the contents of which you are familiar) to upwards of one hundred people representing the foremost ornithologists of the country, residents of the island of Martha's Vineyard, and other persons in the Commonwealth especially interested in this bird.

The replies were overwhelmingly in favor of giving the Heath Hen all the protection possible to prevent its extinction. Practically all of the suggestions looking to efficient care of the colony are now in actual operation. It was proposed that we have an intensive study made of the bird, but this is not now practicable owing to the lack of funds.

Our policy during the coming fiscal year (which expires November 30, 1923) will be to go ahead with the maintenance of the reservation upon the lines pursued in the past, endeavoring in every direction to obtain the greatest efficiency. The lease of the adjoining property will be extended for one year, providing this is satisfactory to the owners.

We will undoubtedly give further consideration to the problem next winter, based on the results of the present breeding season. We will grow green foods to attract the birds in the summer, corn to be left standing for winter feed, kill off vermin of all kinds, and patrol the reservation against poachers. The forestry division maintains an observation tower in the center of the reservation as part of its fire-fighting equipment in the Vineyard.

We will not place any Pheasants on Martha's Vineyard, but will put forth every effort to continue stocking the island with Quail. Eventually an open season on the latter should provide gunning without danger to the Heath Hen.

Please feel free to write to us at any time on conservation matters. We earnestly invite suggestions.

(Signed) DIVISION OF FISHERIES AND GAME

In the meantime, John C. Phillips, of Wenham, Mass., has employed Prof. Alfred O. Gross, of Bowdoin College, to make a study of these birds and the National Association of Audubon Societies is now seeking to secure for permanent record moving pictures of this interesting bird which may now disappear most any year.

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Previously reported	\$2,926 75	Loughran, Mrs. M. F.	\$25 00
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Keidel, Mrs. Chas.	5 00		
Kuser, John Dryden	25 00		
Larsen, Miss Agnes	5 00		
		Total	\$3,534 25

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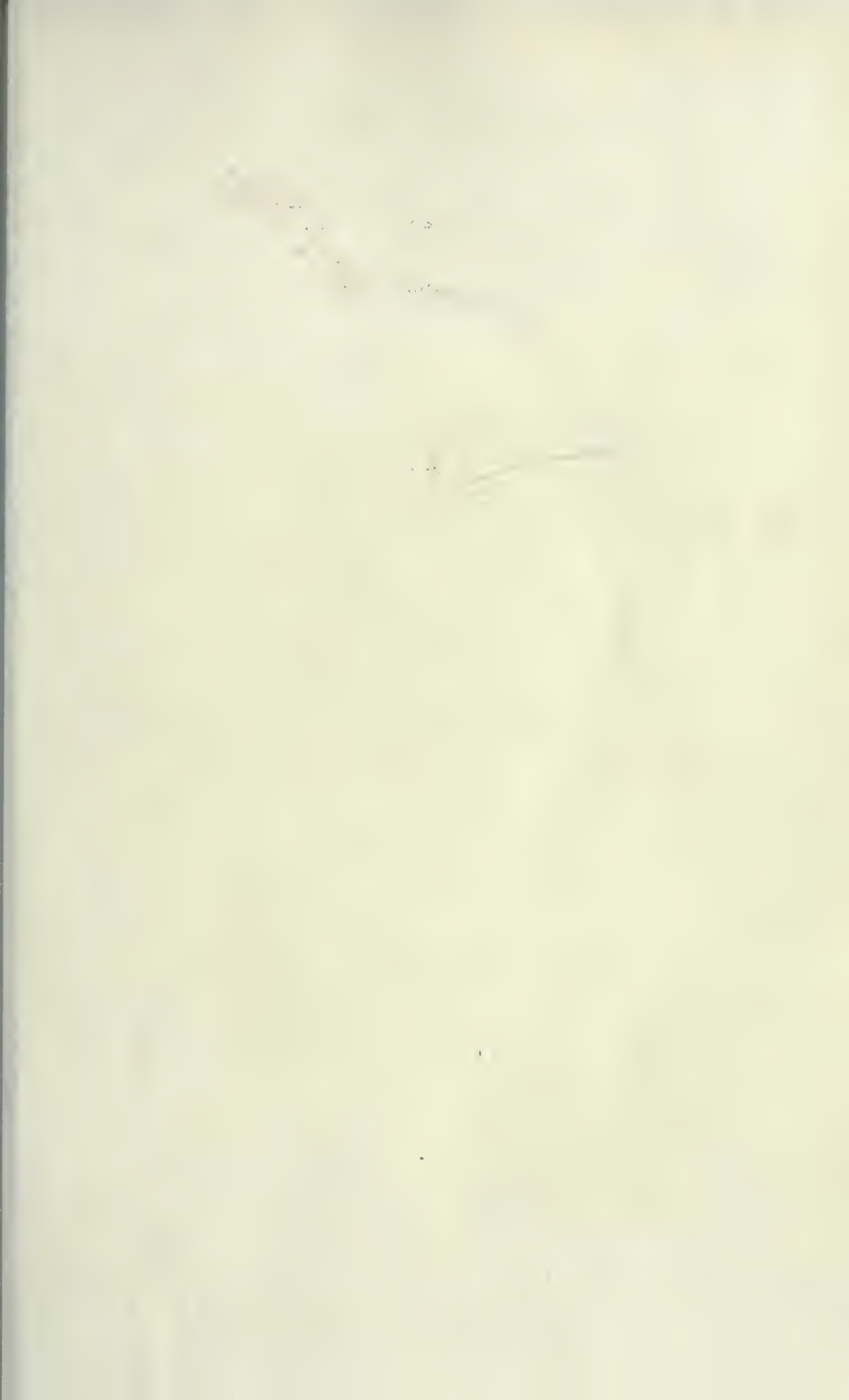
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Richmond, L. M.
Ridgely, Mrs. Martin E.
Riehle, Mr. and Mrs. Frederick S.
Riggs, Mrs. James S.
Robbins, Mrs. Lloyd M.
Robbins, Thomas P.
Roberts, Miss Mary A.
Robinson, Mrs. Francis H.
Rodgers, Dr. and Mrs. Charles W.
Rodgers, Mrs. William B.
Rogers, Mrs. H. L.
Rogers, Henry W.
Rogers, Mrs. James Gamble
Rollins, Mrs. Daniel
Rossier, Mrs. Charles A.
Rousmaniere, Miss Mary S.
Russell, Samuel, Jr.
Russell, Mrs. Samuel, Jr.
Sanborn, W. A.
Sandiford, Miss Alice
Sayward, Mr. and Mrs. E. T.
Schirmer, Mrs. C. T.
Schwarz, Miss Ida T. L.
Schwarz, Mrs. Max
Sealy, Jacob
Sefton, J. W., Jr.
Service, Walter D.
Severance, Frank W., Jr.
Sheppard, John Wade
Shover, Mrs. B. F.
Sidenberg, George M.
Siebert, Charles T., Jr.
Simmons, Mrs. Fanny Sage
Slawson, George L.
Smith, C. Powers
Smith, H. Sanborn
Smith, Miss Jean L.
Smith, Judd
Snowdon, George H.
Snyder, H. S.
Soden, Mrs. Charles P.
Sprague, Miss Frances A.
Stearns, Charles H.
Stebbins, Dr. James H.
Stebbins, Miss M. Louise
Stephenson, William R. C.
Stern, Jacob
Stern, Mrs. Maurice
Stern, Mrs. Randall H.
Stewart, Miss Alethea A.
Stimson, Thomas D.
Stoiber, Richard
Strauss, Gates
Strauss, Martin
Strecker, C. F.
Strecker, Miss Mary C.
Sulzberger, Arthur Hays
Sulzberger, Miss Marian
Surface, W. E.
Suter, Miss Mary F.
Sutherland, Mrs. Louis

- Taft, Mrs. Charles, 2d
 Taft, Mrs. F. L.
 Talcott, Wait
 Tanner, M. C.
 Taylor, Mrs. Antoinette B.
 Taylor, Mrs. Henry A.
 Teagle, Mr. and Mrs. F. H.
 Thomas, Edward Utley
 Thomas, Mrs. Samuel H.
 Thompson, Brady S.
 Thompson, N. F.
 Thornton, Mrs. George D.
 Tiedtke, Ernest
 Todd, A. M.
 Tomlinson, Irving C.
 Torbert, Mrs. James R.
 Tormey, Alfred J.
 Turner, Mr. and Mrs. George B.
 Tyrode, Dr. Maurice V.
 Uebelacker, Mrs. Mary C.
 Ulman, Jacob A.
 Upham, Miss Susan
 Van Beuren, Mrs. M.
 Vanderbeek, S. W.
 Van Woert, Mrs. William
 Varley, Mrs. George
 Veatch, A. C.
 von Lengerke, J.
 Voorhees, Mrs. Dayton
 Vose, Mrs. George A.
 Walcott, Mrs. F. C.
 Waldo, Miss Natalie
 Waldorf, M. W.
 Walker, Dr. John Baldwin
 Walkley, Edwin N.
 Warren, Tracy Bronson
 Waterman, Mrs. G. A.
 Watkins, Paul
 Way, Bayard C.
 Webster, Mrs. Annie M.
 Weil, Leslie
 Weiser, Hubert Holway
 Weiss, Mrs. Charles
 Welcher, Miss Alice L.
 Weld, Miss Mary
 Welles, Robert
 Wells, Miss Hannah C.
 Wertheim, Mrs. Maurice
 Wesson, Mr. and Mrs. A. G.
 Wheeler, Miss Harriet F.
 Whitaker, Frank B.
 White, Mrs. Josephine B.
 White, Miss Mabel A.
 White, Mrs. T. Sidney
 Wickham, Mrs. D. O.
 Wilbur, James B.
 Wilcox, A. R.
 Wilder, Dr. Burt G.
 Williams, Mrs. Alfred S.
 Williams, Benjamin D., Jr.
 Williams, Miss Elizabeth Hawkins
 Williams, H. D.
 Williams, Roger Butler, Jr.
 Williams, Miss Sarah
 Winslow, Mrs. J. Devereux
 Wirth, Adolph L.
 Wisham, Mrs. C. H.
 Wiss, Mrs. Louis J.
 Wood, Cornelius A.
 Yardley, Miss Elizabeth Woolsey
 Young, A. Murray
 Young, Mrs. A. Murray
 Young, Thomas R.
 Zabriskie, George A.
 Ziegler, Fred J.







1. BULLOCK'S ORIOLE, ADULT MALE

2. BULLOCK'S ORIOLE, FEMALE

3. NELSON'S HOODED ORIOLE, ADULT MALE

4. NELSON'S HOODED ORIOLE, IMMATURE MALE

5. NELSON'S HOODED ORIOLE, FEMALE

Reynolds's Quarterly

Bird-Lore

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OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

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Audubon's Farm

By MARY WOOD DALEY, Darlington, Pa.

PILGRIMAGES often disappoint, but happy exceptions do occur. To those who have read the story of Audubon's early life and who appreciate his pioneer work in the natural history of our land, a journey to his farm on the banks of the Perkiomen Creek will afford unusual satisfaction.

A small village nearby is named after the well-loved naturalist. Stone gateposts mark the entrance to the farm, and on one is a tablet reading "This is Mill Grove Farm, the first home in America of John James Audubon." It is now owned by descendants of the Wetherills who bought it from Audubon. Visitors who know how to appreciate such a place are welcome. As we walked up the long driveway to the house, Bluebirds flashed across our path. In the barnyard, Turkeys and Peacocks strutted about with many other domestic fowl. The orchards, pastures, were all lovely to see. The old stone farmhouse was in excellent repair, its general appearance unchanged since Audubon's time. No essential characteristic of the place has been changed, nor has any artificial memorial effort spoiled the simple natural beauty of the home he knew.

From the house we found a woodland path leading to the banks of the Perkiomen. Arbutus leaves, laurel, and blossoming dicentras, cheered us on our way: Redwings called to us—as they must have called to him—from the reeds by the river. The woodland, the river banks, and roadsides glow in the sunlight as they did over a hundred years ago. The same things that gave the young, care-free, nature-loving lad his joy can give it still to us.

Below the house we came to one of his favorite haunts—the old mill. Its outward structure is unchanged, though it is not now in use. Rough-winged Swallows swooped over the waters of the broken dam nearby. A pair of Phœbes lighted on the old door. The creek, on whose ice he skated with such keen delight, along whose banks he hunted, flows on past the mill into the Schuylkill nearby, just as it used to when he lived there in 1803.

Those who have read the story know of the romance and marriage of Audubon and Lucy Bakewell. The Bakewell estate, called 'Fatland Ford,' lies across

the country road from Mill Grove Farm. The mansion in which they lived was built in 1760 by James Vaux. Washington spent a night there; so did Colonel Howe. The ancestors of the Bakewells and the Wetherills are buried in a neatly kept graveyard on the edge of the woods.

As we entered the estate over old stone-wall steps, a delightful wood-path led us by a short cut to the mansion. Here a Hermit Thrush, doubtless on his long journey northward, thrilled us with his quiet presence. We walked through the wood, past the graves, across a wide meadow to the mansion. Though the house is in poor repair, the wealth and beauty of nature around it are undimmed. It stands overlooking the valley of the Schuylkill. On the other side of the river stretch the battlefield hills of Valley Forge. It is a view worth storing in one's memory—the same view that Audubon and Lucy Bakewell must have loved.

It was indeed good to find his well-loved home as beautiful as he knew it, as restful as he would like it to be. It seemed as if he were walking again in those "darling woods" and roadsides, and we knew that we were drinking the same cup of nature's joy and beauty that so satisfied his ardent soul.

How the Killdeer Came to Southport

By MILTON S. LACEY, Southport, Conn.

PRIOR to 1916, the Killdeer was a bird of irregular and even rare occurrence along the western Connecticut shore of Long Island Sound. In fact, twenty-five years of bird-study, with especial attention given to shore-birds, had yielded not more than a half-dozen records of the bird in the vicinity of Southport. Mill River, with its broad tidal flats, during the spring migration, had furnished its yearly quota of 8 to 10 Yellow-legs, 50 to 100 of the Least and Semipalmated Sandpipers, and perhaps half that number of Semipalmated Plover, while, in its eastern cove, the thousand islands of sedge hummock, through which a labyrinth of muddy channels found their way, afforded a paradise for the Green Heron and the Black-crowned Night Heron.

The smooth green slopes of Sasco Hill, gradually ascending from the marsh to an elevation of 100 feet along its eastern side; the rugged, wooded elevation which, rising abruptly, skirts its shores at the northwest; and, at the south, the half mile or more of unobstructed sea beach, stretching from the harbor breakwater on the west to the foot of Sasco Hill on the east, together form the setting through which Mill River makes its way to the Sound.

During the summer of 1916, a great transformation took place in this locality as a result of the reclamation by the local Country Club of the 100 acres or more of estuary near the river's mouth. A huge suction dredge poured in millions of cubic yards of silt and gravel from the nearby harbor; rich loam from the adjacent farmlands was added, and presently there appeared a golf-course where broad green fairways extended across great stretches of gravel

and sand-dunes. A winding lagoon of 15 to 20 acres near the center gave the whole an inviting appearance which has since caused many a passing shore-bird to pause in its onward flight and linger for a while.

The appearance of Killdeer in Southport is coincident with this development. Work was started here in the summer of 1916. On September 10 of that year two Killdeer were found feeding on the newly worked soil of the upland. The following summer (1917), when loam was being spread over the sandy stretches of reclaimed land, the first Killdeer was seen on July 22. On September 27 there were 3 and, on October 7, 6 were running over the newly seeded soil. The following spring (1918) a Killdeer was seen on April 14 by the lagoon and again on the 9th and 16th, while on the 30th of that month the number increased to 4 or 5, and on July 7, 13 were seen. The birds remained about until the last of September and on the 24th of that month 14 were observed. The 1919 season opened with a record of 3 Killdeer on March 30. This number was soon raised to 6 to 8 birds, and so remained through the spring and early summer; but with August the flock increased to 20, and, on October 12, a new record of 26 was made. The latest 1919 record was that of 2 birds on October 26. These summer and fall birds move about together in more or less scattered flocks, usually feeding on the river flats at low tide and resorting to the golf-grounds at other times.

In 1920, the Killdeer appeared on March 21, the numbers continuing about the same as on the previous year through the early months, but on August 8 a new record of 30 birds was made. This year (1920), the Killdeer remained all through the fall and the following interesting records were made: November 14, 24 birds; November 28, 20; December 5, 11; December 12, 20; December 19, 16; December 26, 7.

The fall had been mild, but with January came periods of zero weather and the upland feeding-grounds were entirely frozen up. The Killdeer, however, had evidently decided to stay, relying now wholly on the tidal flats for food. Here, on January 2, 1921, 3 birds were seen; on January 9, 1; January 23, 7; on February 6, 5; on February 13, 20, and 27, 1 each. On February 22, however and again on March 6, 2 were seen, and it is probable that both wintered here. On March 13, the number increased to 3, and, on April 10 to 6. Three or four pairs of birds were in evidence all through the breeding-season.

In late July of this year, as usual, when the return flight of shore-birds commences, the number of Killdeer began to mount, and on the 31st of that month a new high record of 39 birds was made. On that day, after an unusual down-pour of rain, which left patches of standing water here and there, the links were more than ordinarily attractive and afforded the remarkable sight of 19 Lesser Yellow-legs, with a pair of Pectoral Sandpipers, mingling with the Killdeer on the close-cropped greens.

The Killdeer is a very versatile bird. He seems to feel equally at home whether running over a new-mown lawn or freshly turned soil, after the manner

of a Robin, or pattering over mud-flats or along the shore of a lake or sea-beach like a Sandpiper. He also wades about in shallow water to feed as does the Yellow-legs. The Killdeer is also a hardy bird. The writer was inclined to pity a small flock seen on the flats of the half ice-bound river one day in January, when presently one of the party waded into the icy water of the incoming tide and began to bathe in apparent comfort. On the 20th of February, 1921, there occurred the worst snowstorm of the season. When the storm was at its height, I found Mr. Killdeer industriously hunting his dinner on the scanty area of flats, left by the receding tide and not entirely hidden by the fast-gathering slush and snow. Two days later, when the upland was buried knee-deep in snow, two Killdeer were seen feeding on these flats. Where they went at night at such times I did not discover.

While I have not found nest or young of the Killdeer, I am led to believe from their presence during the breeding-season, and from their great solicitude at this time, that they do nest on or near these grounds. At all events, the Killdeer is rapidly becoming the commonest shore-bird in this vicinity.

Other interesting shore-bird records gathered on these grounds during the past four years are: Spotted Sandpiper, common summer resident. Least and Semipalmated Sandpiper, common migrants, spring and summer. Semipalmated Plover, common spring migrant, less common in fall. Greater Yellow-legs, regular spring migrant. Lesser Yellow-legs, frequent summer migrant. Wilson's Snipe, occasional migrant, spring and fall. Red-backed Sandpiper, three at lagoon, October 21, 1917. Black-breasted Plover, two seen September 23, 1917, also two, September 7, 1919, on newly seeded ground. Pectoral Sandpiper, 30, September 7, 1919 on low wet spot on green after heavy rain; 39, September 8, 1919, same place; same flock, September 9, 1919, same place. Upland Plover, one, July 25, 1920 (seen twice on links in succeeding weeks). Dowitcher, one, at lagoon, July 11, 1920. Hudsonian Curlew, one, seen at lagoon, September 1920, by Wilbur F. Smith.

The last five species named never had been observed by the writer about Southport previously. It should perhaps be noted here that observations have been limited, mostly, to an hour's stroll in the afternoon at intervals of a week or more.

Having produced, in the course of its development, this interesting haven for the shore-birds, the Country Club has wisely taken the precaution of having its grounds posted, thus providing for these birds a safe refuge which will, doubtless, be more and more appreciated as it becomes better known.



MIGRANT SHRIKE

Photographed by Dr. Frank N. Wilson, near Detroit, Mich.

The Hermit Thrush

Divinely tuned, O Hermit Thrush,
Far-ringing note of silvery peace,
Thy orison, at dawning's flush,
Through woodland dim tells morn's release.

An utterance chaste of calm supreme
Responding to the joy of day,
A harmony with purling stream
Or waving tree-tops' whispered lay—

Supernal grace of melody
Clear thrilling round the sunlit glade,
Elusive as the zephyr free,
Pervasive as the quivering shade.

I scarce can trace, brown bird, to thee,
This echo of the forest's mood;
I do but hear, it seems to me,
The voice of sylvan solitude.

The tranquil depth of thy rare tone
Bespeaks a faith that knows no fear;
Though summer storms have wildly blown
Thou ne'er hast lacked protection here.

But dost thou, in thy soul's great peace,
Sublime above each restless heart,
Perceive thy solitary place,
And feel that thou art one apart?

For oft, at early evening hour,
When blithesome song of bird is still,
And veiling shadows gently lower,
From this dark woodland of the hill

Thy vesper hymn is heard afar,
Its tones serene as twilight's hush,
But cadence lonely—like the star
That hangs above—my Hermit Thrush.

—FAYE ADELE DAME.

Ruffed Grouse

By THOMAS A. TAPER, Negaunee, Mich.

With Photographs by the Author

RUFFED GROUSE, commonly called the Partridge, are naturally wild, shy and wary, but occasionally individuals are found with the opposite characteristics. Recently I had an unusual experience with a Ruffed Grouse which acted like a tame bird.

This bird was discovered in a deep ravine on August 5, 1922, as it walked along a log and then went under some thimble-berry bushes, feeding leisurely. The incident was passed merely with the thought, "What sights one sees when he has no camera!" But on August 7, when evidently the same Partridge was seen in the same vicinity, I said, "This afternoon, Mr Partridge, I shall have an appointment with you."

The afternoon came, and as I went slowly up the ravine, with loaded camera, there came a surprise. The Partridge appeared again under the thimble-berry bushes. The problem now was to get the bird in a part of the ravine where there was sufficient light to take his picture. So there began a merry game of hide and seek over logs, under thimble-berry bushes, and through light and shade—mostly shade. At last the bird actually flew upon my shoulder and was thus carried to a place where the light was better and dropped there. As quickly as possible an exposure was made with an auto-graflex camera, set for one-tenth of a second and working at 4.5 aperture.



A CONFIDING RUFFED GROUSE

On August 8, another trip was made up the ravine, where I was joined by Mr. Partridge, and we now became good friends. The bird walked about me in small circles, and even allowed his back to be stroked with a stick. At times he paused to eat the leaves of the jewel-weed. When the camera was placed too near him, he attacked it. Several pictures were taken and, on the return walk, the bird followed me for about a hundred yards.

Thus ends the first part of the story which seemed incredible to many of the local sportsmen in the Keweenaw neck of the wild woods in northern Michigan.



RUFFED GROUSE ON RAILROAD

Late in the afternoon of August 30, I returned to the ravine and again met my old friend, the Partridge. A prolonged stop was made and the Partridge as usual, walked in short circles about me. At times, as before, he fed on the leaves of the jewel-weed which grows in great profusion in the ravines of northern Michigan. Taking a seat on a log, the Partridge joined me there. On August 5th

and 8th it had had no long tail-feathers but now it had a full-grown tail. After the visit was over, I walked down the ravine to a place where it was filled in for a railroad, and, climbing slowly up the embankment, waited on the railroad track to see if the bird would follow me.

Very soon the Partridge appeared, and, together, we walked on the railroad tracks for a distance of a hundred feet; then the bird left the track and, as I sat on the bank nearby, it again walked about me in a small circle.

At this juncture two men, who arrived on a hand-car, got off to observe the Partridge, which was now making his way to the edge of the woods to join a covey not far away. One of the men caught the bird but soon after released it. The Partridge would not permit such familiarity, and now became shy and wary. After strutting about with his tail spread out like a half-circle, he hid in the underbrush near the railroad track and was not seen again.

Fanny, a Pet Hummer

By MRS. BRUCE REID, Port Arthur, Texas

FANNY'S case was typical of that of hundreds of birds whose journeyings terminate here. Some fall out of the great migratory procession just before the long flight across the Gulf to southern Mexico; others collapse as they reach American shores on the return trip. But, though brought down by injury or weakness, it does not follow that they have altogether reached the end of the trail.

For instance, there was the Indigo Bunting for whom I swapped a lazy good-natured, old Tomcat a saucer of milk. 'Little Blue' was nearly dead from starvation, and the cat had mumbled one of his wings, which ever afterward remained a bit stiff, but he lived to make his startling, semi-annual color-changes for another six years; and, incidentally, to acquaint me with a number of amazing things never before suspected about his kind.

Then there was 'Tom,' the scorched and blinded Catbird picked up after an April fire started by lightning. Tom sang all the more sweetly because of his infirmities, and spent four happy summers with friends he could either not see at all, or see only very dimly.

Of her sixteen months of semi-domestication, Fanny spent less than five in restraint, and then only during very cool weather, and mostly at night. True to her Hummingbird instincts, she lived among our most luxuriant flowering vines, with a neighbor's geranium beds and okra plants thrown in for good measure. These she defended against all comers until the autumnal influx of hungry little migrants arrived in full force. Then she was forced to narrow her range a little, and another pugnacious Hummingbird lady took up a permanent residence among the flowers just around the corner. Eventually, the second Hummer, 'Fussy,' was picked up, as Fanny had been, while sound asleep on a twig of our willow tree.

The first time Fanny had her picture taken, the photographer waited patiently until nearly 10 P. M. before she tipped over till she looked like some kind of a fuzzy growth on her perch, not swinging loosely, but wedged tightly against the strong little feet clamped like steel wires about her twig. When I shook her awake, she was so badly scared by her unfamiliar surroundings that she buzzed straight for the ceiling, and it took all hands and a broom to retrieve her.

At her next sitting, when carefully roused from a profound nap, she whirled around her perch, squealing with rage, eleven times before stopping bolt upright to *teet, teet, teet* her resentment at being disturbed. But letting her sit on my fist to preen herself awhile, and afterward to partake of her own special refreshment, mollified her sufficiently to allow of the catching of another pose or two.

While she held for a brief period to the usual wild Hummingbird ideas of

bathing by skimming lightly across the surface of a shallow vessel of water, or by shaking her wings out in the dew or raindrop-like sprinklings on freshly watered pot plants, Fanny soon learned to follow the larger birds' whole-hearted methods of plunging in bodily and making the water fly. I once came near losing her through the fondness of tame Hummers for staying too long under the fine spray of the garden hose. Only Fanny's terrified squealing, when she found herself too wet to fly, called my attention to the situation in time to prevent a tragedy.

I have long known that all our Hummingbirds are very destructive to nearly all microscopic insect life, but it took my tame ones to show me that Robins



A PET HUMMER

themselves are not more voracious. I have often walked around after Fanny, and watched her nip insects from the hearts of flowers, sometimes swallowing them at once, sometimes obligingly coming to perch on my hand before sucking down her finds. She and 'Fussy' both zipped for short distances from their lookout stations after gnats and mosquitoes outdoors, and never let one of either get away from them in the house. Also, they would settle on such things as the *Asparagus plumosus* or *A. sprengeri*, which were always getting full of wee creepers and crawlers, and lick up little green buglets and flies as quickly as a lizard or a toad could have done.

When caged, each queened it alone in a compartment big enough

for a dozen Hummingbirds. The two quarreled, and chattered and stabbed at each other through the wire mesh of the partition between them, all the time that they were not eating, bathing, asleep, or making elaborate mutual pretenses of not being aware of each other's existence.

Each had a heating apparatus, the fundamentals of which were a three-pound coffee can, a 50-watt Mazda light with its wiring attachments, a pane of glass not quite touching the can, and four pint-size mason jars upholding the glass, platform-wise. Beneath the glass, and between the jars, were little branching twigs, to which, on chilly nights or rainy days, the small ladies could fly down for special warming, to dry themselves after a cold bath, or to bask for awhile, feathers on end, in a sort of artificial sunlight. Crude as it is, such

an arrangement will keep the most delicate bird comfortable all winter, with the addition of a sheet or two draped closely over the cage. At night I reinforce the sheets with some old blankets.

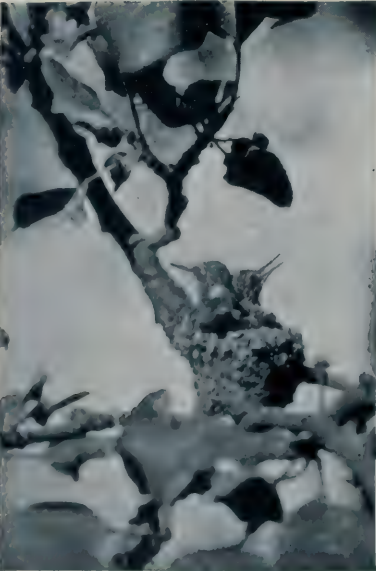
Aside from having so fattened on their prepared food as to have become rather lazy, both birds were in excellent health and spirits, and as full of fight as usual, the last week in December, when some repair work was done on the inside of our house. Before I even knew that the electric current would have to be turned off at all, I happened to go out and look at my Hummingbirds, to find that this had already been done for so long that both were stiff with cold. In spite of every effort to save them, one died that night and the other the next day.

A few of the hordes of Ruby-throats which come through here stop over for the summer, though I have not as yet discovered positive evidence of their nesting in the coastal marshes. Others, tired or weak like Fanny, try wintering with us. If, as is usually the case, we have no weather sufficiently cold to kill the flowers on the west and southern sides of the houses, our little guests survive. Otherwise their fate is that of the ones who last winter had such a paradise among the lantanas, roses, hydrangeas, honeysuckle, coral-vine, hibiscus, plumbago, and other highly colored or scented flowers until caught by a late January cold snap.



A ROBIN'S HOME

Photographed by William Gratwick, Cambridge, Mass.



SCENES FROM THE HOME-LIFE OF A RUBY-THROAT HUMMINGBIRD
Photographed by Frank Pagan, Wellsboro, Pa.

The Migration of North American Birds

SECOND SERIES

XXII. BULLOCK'S ORIOLE AND HOODED ORIOLES

Compiled by Harry C. Oberholser, Chiefly from Data in the Biological Survey

Bullock's Oriole (*Icterus bullocki bullocki*) is a strictly western species ranging from southern British Columbia through the western United States to southern Mexico. It breeds north to southern Saskatchewan, southern Alberta, and southern British Columbia; west to the Pacific Coast; south to Sonora, northern Durango, and Coahuila in Mexico; and east to Central Texas, western Kansas, central Nebraska, eastern South Dakota, and central North Dakota. It winters in Mexico north to Durango, and south to the states of Puebla, Guerrero, Michoacan, and Colima. It is accidental in New York and Maine.

SPRING MIGRATION

LOCALITY	Number of years' record	Average date of arrival	Earliest date of arrival
Corpus Christi, Texas.....	3	April 14	April 5, 1902
San Antonio, Texas.....	13	April 11	April 1, 1897
Mesilla Park, N. Mex.....			April 20, 1912
Tucson, Ariz.....	4	April 15	March 29, 1916
Colorado Springs, Colo.....	10	May 11	May 8, 1914
Denver, Colo.....	15	May 11	May 2, 1897
Salt Lake City, Utah.....	2	May 13	May 11, 1909
Cheyenne, Wyo.....	3	May 14	May 13, 1884
Meridian, Idaho.....	6	May 6	April 30, 1915
Corvallis, Mont.....	4	May 17	May 11, 1911
Great Falls, Mont.....	11	May 17	May 10, 1915
Escondido, Calif.....	3	March 12	March 5, 1895
Santa Barbara, Calif.....	4	March 29	March 20, 1903
Berkeley, Calif.....	9	April 8	March 31, 1904
Carson City, Nev.....	2	May 8	May 7, 1905
Corvallis, Ore.....	5	May 3	April 30, 1913
Okanagan Landing, B. C.....	9	May 11	May 6, 1908
Onondaga Valley, N. Y.....			May 17, 1879 (accidental)
Sorrento, Maine.....			November, 1889 (accidental)

FALL MIGRATION

LOCALITY	Number of years' record	Average date of departure	Latest date of departure
Okanagan Landing, B. C.....	8	August 17	August 22, 1908
Mesilla Park, N. Mex.....			October 2, 1913

HOODED ORIOLE

The typical form of the Hooded Oriole occurs only in Mexico, but two of its subspecies belong in part to the fauna of the United States.

Sennett's Oriole (*Icterus cucullatus sennetti*) breeds in the lower Rio Grande valley in central southern Texas and Tamaulipas, Mex. It winters as far south as the state of Morelos, in Mexico.

The Arizona Hooded Oriole (*Icterus cucullatus nelsoni*) breeds in north-

western Mexico and the southwestern United States, north to southwestern New Mexico, southern Arizona, and southern California; west to southwestern California and Lower California; south to the territory of Tepic; and east to the state of Chihuahua, Mex. It winters south of the United States, and occurs casually in central California.

In the following migration tables those records marked with an asterisk (*) pertain to Sennett's Oriole, the others to the Arizona Hooded Oriole.

SPRING MIGRATION

LOCALITY	Number of years' record	Average date of arrival	Earliest date of arrival
*Brownsville, Texas	6	March 23	March 13, 1909
Tucson, Ariz.	3	March 30	March 25, 1916
Camp Verde, Ariz.	3	April 11	April 5, 1887
Escondido, Calif.	3	April 1	March 23, 1896
Los Angeles, Calif.	5	March 16	March 14, 1906
Santa Barbara, Calif.	3	March 26	March 14, 1910

FALL MIGRATION

LOCALITY	Number of years' record	Average date of departure	Latest date of departure
*Brownsville, Texas	2	October 25	November 12, 1911
Los Angeles, Calif.	3	September 4	September 18, 1897
Tucson, Ariz.			October 8, 1885

Notes on the Plumage of North American Birds

SIXTY-SEVENTH PAPER

By FRANK M. CHAPMAN

Bullock's Oriole (*Icterus bullocki bullocki*; Figs. 1, 2).—The nestling male resembles Figure 2, but has no black on the throat or orange on the head and neck. At the post-juvenal (first fall) molt the black throat and lores are acquired and in some individuals show a scattering of black feathers in the upper parts. This is essentially the first breeding plumage which in the fall is followed (post-nuptial molt) by the adult winter dress. This resembles Figure 1, but the back and underparts are slightly margined with grayish. The nestling female resembles the nestling male. Adult females are like Figure 2 but, as a rule, have little or no black on the throat.

Arizona or Nelson's Hooded Oriole (*Icterus cucullatus nelsoni*; Figs. 3-5).—Nestlings of both sexes resemble the adult female (Fig. 5), and the female wears essentially similar colors for the remainder of her life. After the post-juvenal molt the male apparently continues to resemble the female during the first part of the winter or even early spring when it acquires a black throat and lores. This constitutes its first breeding plumage and it is worn until the post-nuptial (second fall) molt at which the bird passes into adult winter dress. This resembles Figure 3, but the yellow areas are duller and the black is slightly veiled with yellowish.

Notes from Field and Study

Experiences of a Bird-Bander

What could be more absorbing for a hobby than bird-banding? It can be followed through all seasons for summer, winter, spring, and fall provide different conditions and new forms of bird-life. Then, each day brings the possibility of the unexpected in rare species or in the return of banded individuals. One cannot approach the 'trap without anticipatory thrills. The writer remembers one cold January day that came in the wake of a snowstorm. Much effort had been expended in removing the snow from the trap inclosure, and as chaff containing hay seed and oats was being scattered about, it was with the thought, "I wonder what it will all amount to." Twenty minutes later the trap was seen to be full of birds. They proved to be White-winged Crossbills, nine in number. They were tame; one or two that remained outside the cage and had taken flight at our approach returned to feed while their 'pals' were being banded. A few scraps of suet were placed in the trap one day, and, much to our surprise a Downy Woodpecker was found inside an hour later. We thought this very unusual, occurring, as it did, the latter part of April in mild weather and every vestige of snow long since gone. At another time we were astonished to find a Sparrow Hawk within. He showed great fear upon our arrival, and when an attempt was made to drive him into the gathering-cage, his courage completely failed and he lay on his side, motionless except for opening and closing his bill, the latter accompanied by a hissing sound. He made no movement when we reached in one hand to remove him. Seemingly paralyzed with fear, we were not careful to retain a firm pressure upon his neck, and, like a flash, taking advantage of a momentary relaxation, he was gone. One morning a Vesper Sparrow was seen within feeding on the canary seed that had been put there. The trap is located in the garden close to the house, and the Vesper Sparrow is a very rare visitor within its limits. The

next morning the banded bird was again in the trap with another individual, presumably its mate. Especially interesting in behavior were the Chickadees who refused to visit the contraption until sunflower seeds were added to the bill-of-fare. Even then, great caution was displayed. Every seed that had fallen outside was picked up first. These were never eaten there but taken to a clump of bushes just outside the garden and there, perched upon a limb, the seed held firmly between its toes, its bill combining the functions of hammer and chisel, the outer husk was split, the inner part eaten, and the shell allowed to fall to the ground. One individual learned to go back through the two funnels and another could squeeze through the meshes. A fair number were caught and banded, however, and of these many returned again and again.

Purple Finches, White-throated, Tree, and Song Sparrows, and Slate-colored Juncos have been regular visitors. The Purple Finches show fighting spirit and with their powerful bill can inflict some discomfort. A Fox and a White-crowned Sparrow, voyageurs to the north, have been lured within. As we adjusted the bands we wondered where these small bits of metal would be carried. The possibility that sometime we might know lent the charm of mystery to a pastime in no wise lacking in elements of fascination. And so each day we look eagerly for an old friend's return. How often in spring when listening to the first song of Robin, Song Sparrow, White-throat, or Wren we have wondered if it were the same voice that greeted us the year before. And now an answer may be found and we are tingling with excitement. —WENDELL P. SMITH, *Wells River, Vt.*

A Sandpiper Family

I went one day with two friends to a favorite spot to watch the Spotted Sandpipers, and sometimes we were fortunate enough to see the Bittern, Little Green Heron,

and many other birds. As we came near the pond we heard our Sandpiper, but this time she was much disturbed at our coming, and we began to wonder if there could be baby Sandpipers nearby. We went along as quietly as possible and, sure enough, out of one of the boggy places came a little fuzzy object, very much alive, which made its way toward the mother Sandpiper while she called and seemed to guide it. It looked to us quite a feat, but the tiny one teetered along, swimming a bit of water with all the airs of a grown-up Sandpiper. When it reached the mother, her note was different, as much as to say: "Well done! little one," and after mothering it as a hen would her chicken, she began calling again, and, to our surprise, a second one started across the bogs, going in just the same way as the first, the mother calling as before. Then came a third and a fourth, but only one at a time each receiving the same tender note of welcome and the same mothering. It actually seemed as if she called each one by name and the rest were told to keep perfectly quiet until their turn came, but why she did not go to them instead of making them all come to her, one at a time, was a mystery to us. It certainly was a thrilling sight, and made me feel more than ever before that the birds do have a language of their own, and that this mother, in her own way, made the little ones understand just what was expected of them, and they obeyed, as all good children should.

—IDA MAY WILCOX, *Berlin, Conn.*

Chimney Swifts

One evening, last August, about 7.30, when I was idly sauntering along Main Street in the residence district, in Cedar Falls, Iowa, my attention was arrested by the great number of Chimney Swifts that were circling above the huge irregular chimney of the Presbyterian church. Hundreds (I really believe thousands) of these stubby-tailed birds were flying with great rapidity around and around the chimney.

As I watched, a street-car approached. The animated circle kept its shape but moved higher, as if blown by a breath of wind. Although composed of innumerable birds, the

circle moved as if it were but one ever-moving object. After the street-car had passed, down sank the circle to its former position above the chimney. To my surprise, the circle now whirled in the opposite direction yet not a bird seemed to have changed his position in the racing procession. Around and around the tiny black objects flew. How each little creature could keep his place in the circle and not collide with his neighbor I could not understand.

Dusk was falling. I stepped out from under the shade of the trees to have a better view. Like a ring of smoke puffed from a locomotive the forward end of the circle tilted upward; in a second, the whole lively ring was far in the air, high above the chimney.

Wishing to discover in what manner the birds would enter the chimney, I slowly stepped backward, with as little motion as possible, and leaned against the trunk of a large shade tree near the walk. Again the circle descended so evenly, yet in so short a time, that I was unable to see how the change of position was accomplished. Again I noticed the direction of the flying birds was reversed. Soon I noted one bird dart from the circle into the chimney. How he performed the feat without dashing himself against the wall within, was beyond my comprehension, for apparently he slackened his speed not one whit. Now a second Swift broke from the others and disappeared within the chimney in less time than I could wink my eye. Around and around, the circle continued to whirl. Another and yet another bird thrust himself from his companions and entered the chimney until five had vanished. Either the weakest were becoming exhausted or the best flyers were exhibiting their skill in darting, but on and on the hundreds raced.

It was now almost dark. I knew in a moment or so more I should witness that for which I was waiting—the breaking up of the circle. The break came so suddenly, and yet so gracefully as to appear gradual.

I was fairly startled. It looked as if an unseen hand tipped the circle and poured a stream of birds into the chimney. The stream flowed downward with the same rapid

motion that the birds had maintained in the sky, until in a minute, perhaps only seconds, the vast number of Chimney Swifts were housed for the night within the great chimney.

How I longed to look within. How I wished I might watch the birds alight on the chimney walls, where, clinging with their claws and bracing with their spined tail-feathers and perhaps twittering a gentle, "Good-night, good-night," they dropped off to sleep.—BELLE WILSON, *Chicago, Ills.*

A Hummingbird Incident

Just as I was about to open the screen-door to take into the house a bunch of nasturtiums I had picked, I spied two Hummingbirds sitting on the telephone wire almost over my head.

I remarked to my sister standing near that I was going to see if they would not come down for some honey, and stretched out my arm at full length. Almost as soon as the words were spoken, down came one of the little mites and took some honey up to the one on the wire. Back she came again, getting a taste for herself, then she perched on a clothes-line nearby.

Again she came, poising and fluttering in the air about three feet from me, apparently looking me over. She then came to the bunch and dipped into each blossom, making an odd little click with her bill each time.

Those were minutes of rare delight, to have that little jewel of the air so unafraid and to watch it at such close range.—GLADYS FOWLER, *Chicago, Ills.*

An Arkansas Kingbird's Nest

About ten years ago when all the trees in our yard were small, the first pair of Arkansas Kingbirds came to our place and nested in a tree within 8 feet of our front porch. I regret that we did not band the nestlings, however, we believe they returned the next spring, as the same number of Arkansas Kingbirds came to our yard as had left the previous fall. One nest was again built in the same tree, and every year since, that tree has been the home of one pair of Arkan-

sas Kingbirds. For several springs the increase in numbers of these birds seemed about the same as the number of nestlings



A STRANGE NEST-SITE OF AN ARKANSAS KINGBIRD

raised in our yard and grove the previous summer. These pugnacious, unmusical birds are now as numerous in our groves as any kind, unless it be the Mourning Dove.

The characteristics of the Arkansas Kingbird and the common Kingbird are much the same. Each sometimes selects an unusual nesting site. The accompanying photograph shows a nest of the former in an apparently insecure place and entirely unsheltered from the rays of the sun, yet the nestlings thrived. The next year the common Kingbirds or Bee Martins raised their young in an open tool-box on the beam of an old cultivator upon which the sun's rays beat down mercilessly all day long.—VIOLA McCOLM, *Bucklin, Kans.*

The Starling

As a singer, the Starling is a joke. As a tireless painstaking worker, trying to become a singer, he is a model of patience and much to be admired. Although a gregarious

bird, when he sings he wants to be alone. He selects a moderately high perch, carefully cleans his bill, adopts a theatrical posture, head bent forward, body inclined, and then he begins. His song may be compared to the whisper song of the Brown Thrasher, Catbird, and Robin, but how different! It is not musical, but harsh and grating, an imitation in tempo of all the birds in the neighborhood. The mew of the Catbird, the rhythm of the Song Sparrow, the trill of the House Wren, and a medley of various notes may be distinguished by a careful ear, but the music is all gone. His natural note, a pure clear whistle, is the only pleasing part of the performance. Never a moment is his body still. From head to tail he quivers, and his wings, at first gently moving up and down reach the velocity and appearance of rapidly moving discs. Some singers are much more athletic than others, both vocally and gymnastically. Late in the summer I have seen the young of the first brood attempt to sing. Endowed with such poor vocal cords and such a strong desire to sing, is it not possible that, by a process of selection, the Starling of the future may be a real singer?

In the spring of 1922 a pair of Starlings appropriated an old Flicker nest at the top of a telephone pole near my home. They raised a family of five and, having seen them safely launched in life, began to clean out the nest in preparation for a second brood. They brought great quantities of nesting material. I thought they were safely settled and was much surprised, a week later, to find the nest occupied by a pair of Flickers. There must have been a battle to enable the Flickers to regain their old nest. The Starlings were constantly on the alert to dislodge the usurpers and made every possible effort in this direction, but the Flickers never left the nest unprotected. One bird was there all the time and drove off the Starlings whenever they attempted to get near the nest. Time and again the Starlings tried but the Flickers were never caught napping and succeeded in keeping the nest and rearing their young. Each time the Flicker drove off one or both of the Starlings, he emitted an exultant note of triumph. When the Flickers abandoned the nest, the Starlings

again occupied it and raised another family. Although fully able to take care of themselves the young were constantly returning to the nest and sometimes even entered it. Always the old birds drove them off. I attribute this return to the nest to their clannishness, all the members of one family keeping in close touch. As soon as they leave the nest, they begin group-flying and, late in the summer, the graceful and well-timed evolutions of large flocks of Starlings is an impressive and beautiful sight.

A few years ago I was in the foothills of the Catskills in mid-January. The ground was covered with snow and it was very cold. One day a flock of about twenty-five Starlings appeared and began to eat the berries of a vine that covered the entire north side of the house. They stayed several hours, then flew away, but returned every day until not a berry was left. As they had never been seen in this neighborhood before, I wonder from what distance this daily flight in search of food was made. On a porch outside my window I had several pieces of suet on which the Chickadees feasted. The Starlings never touched the suet although they stood on the floor right next to it and even on it. So eager were they for the berries that nothing else was noticed. Had they tasted the suet, perhaps I might have been able to keep them there all winter.—ALICE K. MELOY, *Atlantic Highlands, N. J.*

Notes on the Starling

I wonder how many of BIRD-LORE's readers have noticed that the Starling imitates the notes of other birds in his repertoire. I have frequently heard the notes of the Goldfinch and the 'whisper-song' of the Catbird, and these are always quite sweet, and musical, but most of the Starling's notes are squeaky and decidedly unmusical.

Last summer a pair of Starlings nested on an old church across the road, and that flock often augmented by two or three dozen more are in our trees most of the time.

Early in the winter, as I had but few Woodpeckers at the suet, I thought perhaps the Starlings, together with the English Sparrows, were driving the native birds away

but I have kept close watch and have never seen them molest any birds in any way. Also I never had more Chickadees and Nuthatches come to the window-sill for food, so have concluded that the Starlings have had nothing to do with the scarcity of the Woodpeckers.—GRACE L. WHITE, *Watkins Glen, N. Y.*

Starlings at Watkins, N. Y.

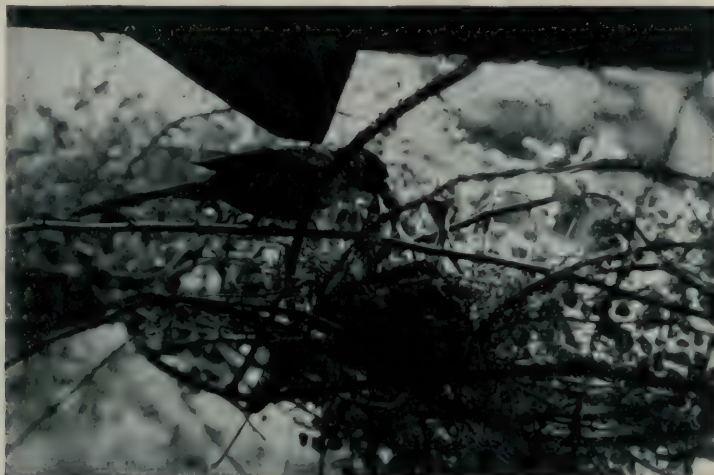
During the summer of 1920, one of the neighbors shot into a flock of Redwings

near here, where I believe they nested. Last fall it was a common sight to see from a pair to a dozen Starlings eating elderberries from the bushes along the roadsides.

The last flock I have seen contained about sixty birds, each trying to outdo the others' vocal efforts.

Whether or not these birds will become injurious to our native birds will be interesting to observe. If they monopolize the nesting cavities, where will our Bluebirds nest?

—HAROLD J. CLEMENT, *Watkins, N. Y.*



CARDINAL FEEDING YOUNG

which were feeding on a shock of grain. Among the birds killed was one which he could not identify. The strange bird was given to me and I still have its skin—the first Starling I ever saw!

In the spring of 1921, a pair of the birds nested in the cupola of a neighbor's barn, raising a brood of four. Several people asked about "the birds with such a funny squeak." Everyone was surprised to see Blackbirds nesting in a barn. During that fall I saw the birds occasionally, usually with a flock of Redwings, and once with some Robins. But all of the Starlings did not migrate, because I often saw a single bird, and less frequently a pair of the birds, around the barns during the winter.

The spring of 1922 found pairs of Starlings around several of the barns and orchards

The Starling in Ontario

The English Starling is breeding at Port Dover, Ont., where the writer saw them recently. They have made their nest in a hole in the side of Mr. Charles Ivey's flour-mill and have two young ones. If the writer remembers correctly, in one of your Bird Censuses, one of your correspondents said that he had seen these birds near the Niagara River on the American side.—F. A. BARWICK, *Toronto, Ont.*

The Cardinal

Reed's 'Bird Guide' aptly describes the Cardinal as "Noble in carriage, beautiful in plumage, amiable in disposition." His song is the richest, clearest, tenderest note that I have ever heard. The Mockingbird has a

more varied voice, but no single note of his is more beautiful than the divine voice of the Cardinal when he is at his best. He is not shy as some believe. Last year a pair built their home and raised a brood in a rose bush under the eaves of a shop in the yard. In this shop was a wireless sending set. Inside of its crashing noise, in spite of the fact that people were constantly passing directly under the nest, and that a glaring light came through the window on the nest far in the night, the brood was successfully raised.—C. R. WHITTAKER, *Atlanta, Ga.*

Cardinals and Cowbirds

Though our home is but little more than a mile from the center of the business district in a city of 55,000, a pair of Cardinals lived in our back yard all last winter. They feasted upon the cracked corn, chick-feed, and sunflower seeds I put out for them, and during one severe storm, and for several days afterward when the ground was covered with snow, took refuge in the garage, as we left the door open for them. They were very tame, and the male sang on pleasant days all winter.

About April 15, I noticed the female carrying sticks into the honeysuckle vine on the garden fence, and later saw her sitting on the nest. On April 30, when she was off the nest, I looked into it and discovered one egg—a Cowbird's. This hatched out next day and the parents fed the nestling and the female brooded it. On the morning of May 5, I saw a Cowbird alight on the vine near the nest but upon catching sight of me, she flew away. I looked into the nest then and found it empty, and presently discovered the nestling dead on the ground underneath. As a pair of squirrels had been around the yard for several days, I suppose one of them was the culprit.

In the afternoon when I looked into the nest, I saw that another Cowbird's egg had been deposited. A few hours later, we again found the nest empty, and the egg with two holes pecked in it, on the ground beneath. We laid the blame for this to the Bluejays that had been screaming around the yard during the day.

After this last experience, the Cardinals deserted the nest and went to a neighbor's yard about four blocks away to nest again.

The thing we cannot explain is the absence of the Cardinals' own eggs in the nest. Did the Cowbird throw them out, or didn't the Cardinal lay any when she found the Cowbird's egg already there?—LILLIAN S. LOVELAND, *Lincoln, Nebr.*



A BRICK AND TILE MARTIN-HOUSE

A Brick and Tile Martin-House

People who wish to have Martin-houses built to conform to the architecture of their homes will do well to study the house built by Mr. Jack Miner, the well-known ornithologist who lives near Kingsville, Ontario. The shaft is of brick, standing on a concrete base. The twenty-eight rooms are made by setting pieces of drain-tile on end and breaking a hole for the birds to enter. A stone capping provides both floor and roof. The Martins are much pleased with their modern apartment-house.—RALPH BEEBE, *Detroit, Mich.*

A Yellow Warbler Incident

An interesting example of a bird mother's care was observed recently. A pair of Yellow Warblers had nested in a nearby shrub. Unfortunately, the nest was placed in such a position that it was not shaded except during the early morning and late afternoon.

After the young ones were hatched the weather became exceedingly hot. The little mother seemed to realize that her nestlings could not long survive if the sun shone full upon their unfledged bodies; so each day, from 9 to 10 o'clock in the morning until about 4 in the afternoon she stood on the edge of the nest with wings lifted and shaded them.

She shifted her position during the day from southeast to south, and then to southwest of the little ones so that she might shade them perfectly.

When at last the welcome shade of a tree fell upon the nest, she hurried away to help the little mate who had been working alone all day trying to supply the young ones with food.—ETTA M. MORSE, *Wasnocket, S. Dak.*

A Summer with a Catbird Family

On May 24 I noticed that a pair of Catbirds were building a nest in a plum tree about 30 feet from the house. The site was about 7 feet high.

A few days later we found a Catbird's egg on the ground about 12 feet from the plum tree, under the leaves of a strawberry plant. I know that no person had been near the nest. How came the egg on the ground? The Catbirds seemed undisturbed, the mother sitting quietly upon her nest.

June 16, I noticed the birds were carrying food to the nest so I knew the young ones were hatched. I had not been watching closely enough to be sure whether they hatched that day or the day before.

Soon after this I began placing pieces of egg-yolk or of bread soaked in milk where the parent birds could see them. They soon became very fond of this food. June 26, the three young Catbirds left the nest.

About this time the parents began feeding them with the egg and bread. Whenever I

would call, 'Kit, kit, kit!' one or the other would fly to a tree near me and watch for the food, which they would take as soon as I had gone a few feet away.

June 28 and 29, the old birds built another nest in another plum tree not far from the first one.

The father bird now began to take the entire care of the young birds. He kept them for days in a large apple tree which was next to the tree in which they were hatched. He slept there with them at night, and fed them quantities of bread and milk, as well as juicy worms and bugs, and fruit. One day he brought a large, green, dogworm which he had difficulty in killing.

He visited his little mate many times a day, singing beautifully to her, and she would often fly down to eat the bread and milk with him, but I noticed she did not feed the young birds. The second nest was higher than the first one, but I climbed up and saw three eggs in it.

The morning of July 12, my father saw a Long-eared Owl in the yard and shot it. When I looked for the baby Catbirds, one was missing. I opened the Owl and found the missing bird within, only partially digested.

That evening the little father coaxed the young ones away from their usual sleeping-place, across the road into a small grove. Did he think they would be safer there if the Owl should return? Knowing that the Owl was dead, and that a neighbor's cat hunted in the grove, I drove the little ones home as soon as their father left them. He did not try to coax them away again.

The young birds had grown so fast that they were soon able to fly nicely and seemed well able to feed themselves, but they followed the old one about and begged continually for food.

July 15, the young birds, in the second nest were hatched. Early that morning the mother bird drove her older children away from the place, then brooded the new babies while the father brought her food for them.

As usual, we placed the dish of bread and milk in its place by the tree, but neither bird took the slightest notice of it. Did they know that insect food was better for the very young birds?

Two or three days after this, the birds of the first brood were back in the yard. We saw them in a tree together with both parent birds, but they had learned to feed themselves and never again begged to be fed.

July 27, the birds of the second brood flew. Then we noticed another strange thing. The father took one young one to the apple tree. There he fed it and cared for it alone. The birds of the first flock had returned to that tree to sleep.

The mother took the other two babies in the opposite direction and fed and cared for them in another part of the yard. She gave them bread and milk many times a day but drove away her mate if he tried to get any of it. No matter how loudly the one babe in the apple tree cried for food, the mother never paid the least attention to it, and I never saw the father feed the two on the other side.

However, when the second brood were able to take care of themselves, all seven birds were often together. They made our grounds their home until the time they started on their journey south.

Every morning I found some of them waiting for their bread and milk.

A basin under the hydrant was their bath tub, and a butter-jar their drinking-place.

They became so tame that we could pass within a few feet of them. They would tease for their food if we forgot to give it to them, and they often seemed to try to attract our attention, as if they wished to be noticed. They were friendly with a Brown Thrasher family which also made its home with us. The morning of September 29, we saw Thrashers and Catbirds for the last time.—

ETTA M. MORSE, *Woonsocket, S. Dak.*

The Disposition of the Catbird

In spite of the fact that the Catbird is a beautiful songster, and is demure and unobtrusive in manners and habits, he seems to have few friends outside of the dyed-in-the-wool bird-lover. I have met a number of people who have had an antipathy for the Catbird for no reason whatever, and I've known boys, who would not harm a Robin or Bluebird, to shoot them on sight. And

only, I believe, because of the poor bird's rather snarling cat-like alarm-note.

A little incident that came my way June 8, 1919, at least proves the Catbird's goodwill and good nature toward his bird neighbors.

In a little thorn bush on a hillside I found a nest of this species containing four heavily incubated eggs. The bush was hardly three feet high, and, for a few feet below it, some blackberry briars had grown to about the same height; just an isolated little clump of vegetation. Less than 4 feet (by measurement) from the Catbird's nest, and at the same height, was a nest of the Yellow Warbler with five perfectly fresh eggs. (Condition of eggs of both species easily told by appearance of the shells and by holding to the light.)

The gentle brooding Catbird had allowed this little Warbler to build a nest 'right in her face,' so to speak, and to deposit a full quota of eggs unmolested. Unfortunately, I did not return to the place, but have enough confidence in the Catbirds' general behavior to feel that all went well when the young Warblers appeared.—E. A. DOOLITTLE, *Painesville, Ohio.*

The Whistling Catbird

One spring I was devoting close attention to a much-loved garden that contained not only crisp vegetables but beds of such joys as pansies and forget-me-nots, and one small cherry tree in the top of which a Catbird was wont to perch and pour out his soul. This bird was a finished musician, his repertoire seemed limitless, and the quality of his tones more full and round than is usual with his kind. I do not believe I have ever heard a Mockingbird that could surpass his powers of mimicry and his voice was far sweeter than that of *Mimus polyglottos*.

He grew very tame and would allow a close approach. I talked to him as one would to a child. He would cock a beady eye at me and listen as if trying to comprehend what was saying, seeming to know that, at least my voice sounded friendly. Having read somewhere that one could teach a wild bird three notes I decided to try the experiment. and chose a familiar whistle by which my

young nephew and his friends were accustomed to call each other.

Often as I was about the yard the Catbird would follow me around through the trees. Chancing to glance up and see him, if he had not already made himself known by a series of bird-calls, I would greet him with the whistled call. He would regard me with seeming great interest, giving me the benefit of a scrutiny with first one eye and then the other, cocking his head this way and that, as if listening intently and trying to fix the phrase in his mind, but never to my knowledge did he attempt to mimic the notes I was trying to teach him that summer.

One day the following spring, before I realized that the Catbirds had returned from their winter sojourn in the South, as I was strolling through the yard I heard the familiar whistle. Glancing about and seeing no one in sight, I was much puzzled. Again the familiar call, still closer, but seeing no one I was mystified indeed until, looking toward an upper window of the house to see if anyone were calling me from there, I spied my Catbird on a branch of the tree overhead. He was looking very saucy and knowing, and, as if to set my mind at rest, gave again the familiar whistle, followed by a series of cat-calls and bird-notes from his familiar stock. He stayed about all that summer and with his other calls would often sound the familiar whistled notes of quite different quality from any others that he gave. He came back again the following year, but we never saw him afterward.—MARIE ELLIS HEGLER, *Washington C. H., Ohio.*

Gnatcatchers Attacked Cowbird

Is the Cowbird recognized by other species as a parasite? Though their eggs are disdained by the Yellow Warbler, I can find nothing in my bird-books or ornithological periodicals relating to the Cowbird itself being looked upon as an enemy by species which it frequently imposes upon, and with which it may occasionally come in contact. Therefore, the following incident may be of general interest.

While rambling through a small piece of woodland, at my former home in Kentucky,

on the morning of April 28, 1921, I happened to hear the *ting* note of two Blue-Gray Gnatcatchers that were excitedly flitting back and forth among the lower branches of a hackberry tree. Seemingly, they did not heed my approach, and as I walked under the tree I found that a female Cowbird was the cause of the great excitement shown by this diminutive couple. The Cowbird sat on a small, horizontal limb, not in true passerine style, but rather it suggested a Goatsucker, as it squatted on the limb, its tail pressed against the bark and the head drawn down on the body. The Gnatcatchers, in turn, darted at it from some twigs a foot or two above the limb on which it rested. Darting downward at their enemy, and again upward to a twig above, they outlined a half-circle with the curve downward. Each dart was accompanied by a sharp snap of the mandibles, and the *ting* note was constantly repeated as the irate midgits awaited in turn to strike at what they rightly considered an enemy. I could not see that the Gnatcatchers actually struck the Cowbird but at each dart they appeared almost to touch it. The Cowbird remained nearly motionless, apparently unconcerned at the thrusts of its assailants. After some minutes the Cowbird, without warning, flew to another tree a short distance away, the Gnatcatchers closely following and resuming their assaults on the stupid Cowbird which could have easily evaded her pursuers by flying quickly to some other part of the woodlot. I finally left the woods and the offended Gnatcatchers were assailing their enemy with as much vigor as when I first noticed them five minutes before.

The exact cause of the behavior of these Gnatcatchers toward the Cowbird is a matter of surmise. Possibly they considered this female Cowbird to be what she is, a parasite, and gave vent to their rage as far as it was in their power to do so. Four days after the occurrence related above I found a Gnatcatcher building a nest in the top of a slender sassafras tree about a hundred yards from the tree where the Gnatcatchers were seen attacking the Cowbird. This led me to believe that, perhaps, this pair of Gnatcatchers (the only pair frequenting the woods at the

time, as far as I knew) had found the Cowbird on or near their nest, attacked it as I saw them do, then deserted their nest, sought out a new nesting location, and proceeded to build anew. However, these explanatory remarks must be regarded merely as a matter of conjecture.—BEN J. BLINCOE, *Dayton, Ohio.*

Robins and Cicadas

On Memorial Day, 1922, the 17-year 'locusts' were just beginning to crawl out of the ground—creamy white, luscious looking morsels to a Robin. Young Robins were in the nests, and these soft little creatures were good infant food. As the cicadas crawled out of the ground, they crept along until they came to some upright object—usually passing by slender stalks, and climbing up a post or tree—sometimes only a few feet, sometimes to the top of the tree. There they suspended themselves until their wings filled out, their bodies turned from white to gray and their eyes from pink to black. After finding them on the ground and on the trees near the ground, the Robins began looking for them in the trees. In another week there were quite a few young Robins hopping around and swarms of cicadas coming out of the ground. It became quite a common sight to see a baby Robin with fluttering wings hovering round a tree while its parents circled the tree hunting a meal. Suddenly one would dart up the tree and come down with a cicada. If it was still white and soft it was fed to the youngster without ceremony but if it had grown hard its wings were pulled off before it was offered.

Once I saw a Robin and two young out for a hunt. The old bird ran around the tree, cocking his head and casting an inquisitive eye up the tree. Finally he made a quick flight toward the tree and then ran to one of his children and jabbed a cicada down its throat. Meantime, the other little fellow was jealously watching for his share. Once more the parent circled the tree, and again secured a prize, but again fed the one who was fed first. But, apparently, this child was in the position of the boy who was so full of turkey that he could still chew but he

couldn't swallow. Several times the parent tried to put that insect where it would do the most good, but finally he gave it up, retrieved the cicada, ran to the other youngster, and thrust it into his wide and waiting mouth.

Sometimes a Robin would cling to a tree trunk looking for cicadas until I wondered if my Robins had turned Woodpeckers! About this time the cicadas were so thick that many people swept them up and fed them to their chickens, but on our place there were only a few. They became so plentiful that the birds were unable to eat them all, and many people remarked that Robins were not troubling the berries as much as usual.

After staying in the trees a few days, the cicadas began flying from tree to tree. They were not very swift in flight, and any time I looked up I could see a dozen or so flying through the air, and all day we heard a noise like the sound of a distant waterfall. As they began to fly, the Robins learned to chase them and time and again in the latter two weeks of their stay, I saw Robins flying after cicadas and catching them in mid-air. So I decided they could be flycatchers as well as Woodpeckers! I wondered whether after the cicadas were gone, I would see the Robins catching other insects in the air, but I never did. It shows how they can adapt themselves to conditions.—LOTTA A. CLEVELAND, *Downers Grove, Ills.*

Who Builds the Nest?

I was interested in the notes on Robins in the March-April number of BIRD-LORE. However, I was somewhat astonished to have Paul C. Samson say that the pair he watched while building "both took part in the home-building." I have been familiar with Robins all my life, and had never known a male Robin to help build the nest. So, this spring, I set myself to work to make a careful study of their habits on that point. I have watched perhaps forty pairs in their nest-building, and have not seen a male Robin carry a single straw. I noted this spring what I have seen four times before, namely, that a pair of Robins differed as to where the nest should be built. This time the male chose

a niche in an overturned outhouse, while the female chose the upper side of a 2 x 4 girder under a shed. She would build about three or four loads of lumber on the place he selected; then take one to her chosen site. He did not disturb her while she was building there, but invariably flew at her when she came to the ground for more material, and would thrash her soundly. It reminded me of the old mystery play where Noah had to thrash his wife to make her go into the Ark. The nest where *he* said it should go was fairly well finished, the other having merely the loose foundation, when they seemed to compromise on a place different from either

of the others. The nest is built there, and has two eggs in it today.

We were all deeply impressed with that idea that male birds do not fight over the question of who shall be the husband of a certain female, but that they fight to see who shall be master of a certain bailiwick. Now there is no bird that I know of that does so much fighting as the male Robin; and I have noticed that there is always, without exception, a female hopping about right nearby. Among Robins, at least, the males fight to see who shall lay the wreath of victory in the lap of "the Queen of Love and Beauty."—
LEROY TITUS WEEKS, *Emmetsburg, Iowa.*



TOWHEE

Photographed by Dr. Frank N. Wilson, Ann Arbor, Mich.

THE SEASON

Edited by J. T. NICHOLS

XXXVIII. April 15 to June 15, 1923

BOSTON REGION.—The weather during the past two months has been abnormally cool. Following a severe winter, the spring was backward; the season progressed slowly, spring changing very gradually to summer. On the morning of the first day of the present period (April 16) the trees were covered with ice, from a night of sleet and freezing rain. The elm trees did not blossom until April 21, a month later than in 1921, and the growth of the vegetation was very slow during the next four weeks; it was not till the third week of May that the season approached the average of former years. Horse-chestnut trees blossomed on May 19, (May 13, 1921; May 15, 1922). Even at the present time (June 17), several spring flowers are in blossom—flowers which we associate with mid-May.

The migration of birds was delayed especially during the bleak weather in April. In May, new arrivals appeared nearly every day, but in small numbers and in nearly all cases overdue. There were two conspicuous and heavy flights, the first on the 13th, which included the Baltimore Oriole, Catbird, and many north-breeding Warblers, the second on the 17th, which brought the latest of the Warblers—the Blackpoll, Canadian, and Wilson's—and our resident Vireos. Night-hawks passed over on the 22d, Wood Pewees appeared on the 23d, and the migration was brought to an end by the latest of migrant birds, the Alder Flycatcher, on June 3. It was an uninteresting migration, and a disappointing one to those observers who missed the two big flights.

The interest in the migration lay not in the number of birds and the rare species to be seen, but in the study of the relationship between the advance of the vegetation and the arrival of the birds. It is an old saying here about Boston, that the Baltimore Orioles appear when the apple trees flower. Orioles find food in the opening apple blossoms, and it is a case of the too early Oriole not getting the worm. Similarly, when the oak trees

blossom (generally in mid-May), the transient Warblers swarm in the tops of the oaks where they appear to find an abundance of insect food. This year the oaks were late and the Warblers were late, but certain other birds were not late, e. g. Kingbirds and Black-billed Cuckoos, both of which species established themselves practically on time. They behaved in a normal manner and presumably found sufficient food—evidently flying insects were on the wing, and certainly tent caterpillars were very numerous.

Birds which nest in April were delayed by the cold weather (Mr. George Nelson's Bluebirds established a late record for first-brood fledglings), but the May-nesting birds (e. g. Warblers and Rose-breasted Grosbeaks) are now feeding young out of the nest at the usual date.—WINSOR M. TYLER, *Lexington, Mass.*

NEW YORK REGION.—As was suggested in the last report, mid-April found our migration distinctly delayed by backward weather. On April 29, Griscom and Janvrin noted American Merganser, Green-winged Teal, and Tree Sparrow at Englewood, very late for all three. Backward conditions prevailed until the closing days of April, which were warm and brought an interesting wave of birds. As a consequence, May opened with almost every species that was due to have arrived, reported in small numbers, though often not as plentiful as it should have been. Some very early dates for migrants due in early May were established: April 28, Crested Flycatcher (Central Park, New York City, Capen); Chestnut-sided Warbler (Bronx Park C. H. Pangburn); April 29, White-eyed Vireo (Plainfield, N. J., Miller).

R. F. Haulenbeek, at Newark, reports a Philadelphia Vireo on April 29, which is well in advance of any previous record. In fact it may be questioned if a sight identification of a bird so rare and difficult of determination is of value at such an unusual date. However, the very scarcity of records for

the species may have caused it to be overlooked in early May, even if at times present, and the close of April this year did bring some birds well ahead of time. The same observer encountered a Prothonotary Warbler on June 3, doubtless the latest spring date here for this southern casual, an individual of which was also observed in the Bronx in May by Pangburn and others.

From early May on, conditions remained rather consistently favorable for migration and almost every night brought indications that birds were moving. The tide of avian transients rose to a maximum on May 13 and ebbed again with less than the usual concentrations on different days, so that those observers who chanced to be afield in favorable territory on or about May 13 were well repaid, and those who did not, found the May birds disappointing.

A King Rail was observed May 13, Glen Ridge, N. J. (Mrs. C. S. Hegeman), a species concerning the status of which we need fuller data. Being in a patch of clover at the rear of a garden, it was certainly a migrant.

A party of four (Crosby, Griscom, Janvrin, and J. M. Johnson) report a Common Cormorant and a white Little Blue Heron at Jones Beach, May 27. The first species is casual; for the second, this is the latest occurrence in Spring.

Black Terns, almost unknown in spring near New York, occurred this year.

A Singing Yellow-throated Vireo at Garden City, Long Island, gives rise to certain reflections which may be worth setting down. This is likely the first individual that has ever sojourned in that village for any length of time. The species had of late years become decidedly scarce as a breeding bird near New York. Garden City was built on the treeless Hempstead Plains, and we surmise that its plentiful shade trees have only recently reached a sufficient size to be attractive to this Vireo. The bird in question was first heard on the morning of May 22, and for three weeks its song was heard almost daily. It covered a singing radius of about an eighth of a mile. The species is of sufficient rarity so that there is little chance that this was not a single individual. Furthermore, Garden City, lying off any migration route and not

being an established breeding-ground, though obviously selected as such by this male bird, not more than one or two females would be likely to enter it in the course of the spring or early summer. Were the male silent, what chance would there be of a stray female finding him? Practically none. But with the male singing, her knowledge of his presence would be a virtual certainty. Hence, we may reasonably deduce one important function for bird-song.

The male Brewster's Warbler banded at Wyanokie, N. J., in 1922 (see 'The Auk,' July, 1923), was found nesting, with a Golden-wing as before, within 200 yards of its previous station (June 10, T. D. Carter and R. H. Howland). It was again captured; the number of its band (48866) checked, and its brood of six young banded. Within a half-mile of this point an unbanded singing male Brewster's Warbler had been observed on June 3 by Howland. Two or three miles away, the nest of a female Brewster's Warbler (mated with a Golden-wing) was found by G. C. Fisher (accompanied by L. N. Nichols) on June 3, and the bird banded by Carter on June 10. This female as it showed traces of gray marking on head and throat, might be identified as an atypical Golden-wing.

Further progress in a Linnæan Society investigation of these supposedly Mendelian hybrid forms of Warblers was made possible by Isaac Farfel who reported a nest of the Lawrence's Warbler in Van Cortlandt Park, New York City (a male Lawrence's mated with a Blue-wing). This brood was visited on June 12 by Griscom and Carter; the Lawrence's, and two of the young just leaving the nest were banded.—J. T. NICHOLS, *New York City*.

PHILADELPHIA REGION.—While the local Weather Bureau reported the temperature for the 'Season' only slightly below the average, it certainly seemed anything but normal, with many days unusually cold and vegetation reported from ten days to two weeks late.

Late April found about the usual number of migrants present, with few birds of noteworthy occurrence.

April 21, temperature 80°, numbers of Bonaparte's Gulls, a few Horned Grebes, 1 Loon, several species of Ducks, noted on the Delaware River at Camden (among the Ducks 2 Canvasbacks still loitered); a marked wave of Myrtle Warblers, Yellow Palm Warblers, Brown Creepers, and Ruby-crowned Kinglets passing through, the Yellow Palm Warblers and Ruby-crowned Kinglets being especially numerous. April 22, Cape May, N. J., numbers of Red-throated Loons passing up the coast; 2 Blue-Gray Gnatcatchers found among the oaks. April 30, Fish House, N. J., Least Bittern seen and heard cooing in the marsh.

The May Warbler migration, it seemed, was rather scattered and long drawn out, with first arrivals appearing on time but the great bulk passing though somewhat late. Of 9 species of Warblers noted on a short trip near the city (May 20), 6 were migrants. While it appeared to be rather difficult to see many species in any one day, the total for the month was up to the average and included, as usual, some of the rarer forms, the Bay-breasted and Wilson's being the most frequently reported.

A marked migration of Olive-backed, Gray-cheeked, and Wilson's Thrushes occurred during late May, these birds appearing in exceptional numbers and, contrary to their usual custom in this locality they were frequently heard singing ('whisper' songs. A number of Olive-backs and a Veery were heard singing, almost full tone, in the valley of the Wissahickon, Philadelphia, Pa., on May 19.

Interesting records for the period are as follows: Delaware City, Del., April 29, Red-bellied Woodpecker. Glenolden, Pa., May 6, Red Crossbill; May 15 and several days thereafter, White-crowned Sparrow (Gillespie). Cape May, N. J., May 26, White-rumped Sandpiper, Turnstone (flock of 18). Cape May, May 30, Yellow-throated Warbler, Gray Kingbird, Bobolink (a sick bird which was unable to fly more than 10 yards, caught and found very much emaciated), Short-billed Marsh Wren (Short-billed and Long-billed were heard and seen at the same time, the Long-billed in the Cat-tails and the Short-billed in the grass nearby).

All birds noted on this date were seen by a party of ten observers.

A colony of Black-crowned Night Herons which was reported and located about 4 miles from Camden, by T. G. McMullen, was investigated on May 20 and found to be in very flourishing condition. The rookery was situated in a thick growth of oaks, the nests all being in the tops, well out of reach. The undergrowth consisted almost entirely of a rank tangle of poison Ivy. As near as could be judged, the colony contained about eighty nests, many of which were burdened with well-grown young. That such a thriving colony of these birds could exist so near a large city, seems rather remarkable. Central Sussex County, N. J., May 13, flock of 20 Pine Siskins (Potter).—JULIAN K. POTTER, Camden, N. J.

WASHINGTON REGION.—The cool weather of the Washington region during April and May, 1923, was unusually uniform. There were almost no hot days and no extended warm period, but, on the other hand, there were some low temperatures for the time of year. This continued cool weather did not however, apparently much affect the migration of north-bound birds, doubtless because of relatively warmer weather farther south, whence they came.

Some birds arrived early, such as the Bay-breasted Warbler, Black-throated Green Warbler, Northern Water-thrush, Hooded Warbler, Black-throated Blue Warbler, Chestnut-sided Warbler, House Wren, Solitary Sandpiper, Baltimore Oriole, and Orchard Oriole, all of which were four or more days ahead of their schedule. The Yellow-throated Warbler was seen by Miss M. J. Pellew, at Dyke, Va., on April 7, which is 11 days earlier than its usual time of appearance, and but two days later than the previously earliest record of April 5, 1910.

On the other hand, there were a number of late arrivals, such as the Louisiana Water-thrush, which appeared on April 17, whereas it was due on April 9; the Brown Thrasher, which was first reported on April 15, and of which the average date of spring appearance is April 3; and the following species, all of which were more or less behind time, some

of them as much as a week: Fish Hawk, Purple Martin, Grasshopper Sparrow, Yellow-throated Vireo, Yellow-breasted Chat, Prairie Warbler, Rough-winged Swallow, and Blue-gray Gnatcatcher.

The late and the early arrivals thus about balanced each other, and indicate a fairly normal spring migration of transients, but the influence of the cool weather in this region is reflected in the late stay of a number of species, chiefly winter residents. Among those that thus tarried late are the Ruby-crowned Kinglet, which was seen up to May 13 at Plummer's Island, Md., by F. C. Lincoln, whereas its average date of departure is May 4, and its very latest stay, May 17, 1917; the American Crossbill; and Bonaparte Gull. Four species remained later than ever before: the Yellow Palm Warbler, seen by F. C. Lincoln at Plummer's Island, Md., on May 13, the previously latest date of which is May 12, 1913; the Ring-billed Gull, seen on Alexander Island, Va., by Miss M. J. Pellew on May 22, which is two days beyond its previously latest record of May 20, 1917; and the Brown Creeper, seen by Mrs. C. A. Aspinwall on May 3, the previously latest record of which is May 1, 1907. Likewise, the Laughing Gull, a species that has either become more numerous in recent years as far up the Potomac River as Washington, or has been brought to the notice of observers more frequently, was seen at several times by several persons between April 26 and May 22, the latter date being considerably beyond its previously latest spring record of May 12, 1917.

Among the rare or otherwise noteworthy birds that have come to our attention during this period, the following might be mentioned: The Caspian Tern, one of the rare birds about Washington, was seen by Miss M. J. Pellew on April 26, on Alexander Island, Va., which is earlier by considerable than its previously earliest spring record of May 5, 1918; the Blue Grosbeak, which is always a bird of uncommon occurrence about Washington was reported by Mr. E. R. Elliott at Alexandria, Va., on May 2 and 3; the Cerulean Warbler, which is not often observed here, was seen on May 12 in the National Zoological Park by Mr. and Mrs.

G. H. Mengel, this species being probably of more regular occurrence than the records would indicate, for it is easily overlooked among the hosts of migrating Warblers; and the Great Horned Owl, which has become in recent years very rare and local, was reported by James Silver on the Anacostia River, May 13. C. R. Shoemaker noted a nest of the Woodcock with four eggs, on April 21, at Dyke, Va. The Semipalmated Plover, one of our rare shore-birds, visited Alexander Island, Va., on May 22, and for several days this date, as reported by Miss M. J. Pellew. The Common Tern was reported by Miss M. J. Pellew on May 13, 14, and 22, on Alexander Island, Va., and all but the last date a flock of a dozen or more was observed. The Black Tern also was reported by Miss M. T. Cooke on May 12, 13, and 14, in the same locality, about a dozen being seen on the last two dates.

Of the large number of Ducks that frequented the Potomac River during the past winter, those that remained latest in spring were the Black Duck, the Lesser Scaup, and the Greater Scaup. On April 4, we saw about 300 Black Ducks and about 4,000 Scaup Ducks on the Potomac River between Washington and Alexandria. These species lingered on the river until at least the middle of May, although after the middle of April their numbers were greatly reduced.

Some additional features of the spring migration seem worthy of comment. The Purple Finch and the Pine Siskin were extraordinarily abundant all through the spring, and the latter, particularly, remained in considerable numbers up to about the middle of May, the latest date of which we have any record being May 13. The Golden-winged Warbler also was much more frequently observed than is usually the case. On the other hand, most of the Warblers, excepting a few, such as the Redstart, were not at all common, and the Blackburnian, the Bay-breasted, the Tennessee, the Cape May, and the Magnolia were notably few in numbers. The Gray-cheeked Thrush, also, was either very rare, or in some unaccountable way escaped observation. The White-crowned Sparrow, although by no means a common species in normal seasons, was even

rarer than usual, although observed on May 14 by James Silver along the Anacostia River.—HARRY C. OBERHOLSER, *Biological Survey, Washington, D. C.*

PITTSBURGH REGION.—There have been protracted dry spells this spring. Pymatuning Swamp, in Crawford County, is drier, so the inhabitants of Hartstown say, than it has ever been and certain it is that areas in that swamp are now parched which were under 2 feet of water last spring. The movement of birds has been normal, however, for the most part, and no species of great interest has been recorded. We have been favored by visits of interesting water-birds from time to time, and Bayard Christy's excellent field work at Clinton Pond, near Sewickley, has been the means of recording numerous interesting species, particularly a Red-breasted Merganser on May 26. Herring Gulls have been commoner than usual along the rivers, and Bonaparte's Gulls were recorded at least twice in latter April. A flock of Ring-billed Gulls was seen near Beaver, on May 8, by W. E. Clyde Todd and myself, and the Gull seen by Norman McClintock two days previously at Aspinwall, was likely of the same species. Messrs. Reiter, Squiers, Elliott, and Jones also had the satisfaction of seeing this unusual species of Gull on May 13, near Monaca, when a flock of about 50 was observed. Thus it appears that an invasion of this species has occurred, due, perhaps, to storms about Lake Erie. Reports of at least seven observers agree that the Spotted Sandpiper arrived April 23. This species has been unusually rare in some regions. Only one pair was seen about Hartstown during three recent field-trips. The other shore-birds—Wilson's Snipe, Yellow-legs, Killdeer, and Solitary Sandpiper—have been present as usual, the Wilson's Snipe having been rather more numerous than is generally the case. I had the extreme pleasure of holding baby Snipes in my hands this spring—an experience which comes to but few.

The big wave of Warbler migration commenced April 28, and Joseph Galloway's list for April 29, at Oakmont, includes 10 species. By May 13 the wave had reached its height,

no doubt and Messrs. Elliott, Reiter, Squiers and Jones recorded 24 species at Raccoon Creek. Included in their list was the rare Mourning Warbler. The Cape May Warbler, which is regarded as a rare spring migrant here, has been recorded several times, twice by Mr. Todd, once by Messrs. Elliott, Squiers, Jones, and Reiter, and twice by myself. The Cerulean seems less common as a nester in Beaver County than formerly; the Black-throated Green more abundant in Pymatuning Swamp than last year. Both the Blue-winged and Golden-winged have been numerous, and one or the other or both have occurred on numerous lists.

On May 3, an Orange-crowned Warbler was seen by Messrs. Cooke Bausman, Norman Woolridge, and myself. Rudyerd Boulton also recorded this species at Raccoon Creek.

In the panhandle of West Virginia, Carolina Wrens seem to have regained their former abundance. Orchard Orioles have been increasing in numbers locally there and Prairie Horned Larks decreasing. In parts of western Pennsylvania there has been a gratifying increase in the number of Cliff Swallows, and Mr. Christy's reports seem to indicate that Bank Swallows may be returning to their former nesting-places along the river. Reports seem to agree that Rose-breasted Grosbeaks have not been as common as usual, and my own notes seem to indicate a rarity of Yellow-throated Vireos. The Philadelphia Vireo was quite common for a period, however, many having been recorded on May 22, at Beaver, by Mr. Todd.

Messrs. Semple and Christy found a family of young Long-eared Owls and their parents at Frankfort Springs on May 24. This region is an interesting one on account of the numerous hemlock trees. At least five Sharp-shinned Hawk nests have been found locally, and on June 17 the species was recorded at Pymatuning Swamp for the first time. Many interesting portions of our region have not been heard from recently, so this report is necessarily incomplete.—GEORGE MIKSCHE SUTTON, *Statistical Secretary, Audubon Society of Western Pennsylvania.*

OBERLIN (OHIO) REGION.—The temperatures of the season have ranged between 40° and 95°. Precipitation has been slightly under normal, but the days have been generally warm and not too hot, and the foliage was very nearly fully developed after the middle of May.

There has been an abundance of insect life since an early date, which probably has had much to do with the very interesting migration of Warblers this spring. Experienced ornithologists agreed that this migration was unusually extensive and that their numbers were much larger than usual.

Of the Warblers, the most abundant was the Magnolia, the Redstart, Yellow, Chestnut-sided, Bay-breasted, Blackburnian, Black-throated Blue, Northern Yellow-throat, Black-throated Green, Oven-bird, Myrtle, Canada, Black and White, Black-poll, Cape May, Tennessee, Wilson's, and Nashville, in order of abundance. Other species were regular or uncommon.

The important dates of the season were April 20, 21, 28, and May 7, 19, and 20. Those of April, and May 19 and 20, probably mark distinct movements of migration, but the observations of May 7, 19, and 20 were made under good conditions and in an unusually fine locality, so that on these days the migration may have been prolonged from an earlier date.

The trips taken on May 7, 19, and 20 were in the vicinity of Bay Point, Ohio, which is on the south side of the peninsula which curves around to help form Sandusky Bay. It is here and at Cedar Point that large numbers of migrants gather to cross Lake Erie.

On the beach at Bay Point, the Piping Plover, Caspian Tern, and Ring-billed Gull were observed, species seldom seen elsewhere in this region. The marshes and woods were also productive of rather unusual species, such as the Mockingbird, of which two individuals were seen, both probably males and permanent residents. So far as is known there has been no breeding of this species here.

The combined lists of four small groups of observers of the same locality for May 19 and 20 amounted to 143 species.

The following will show the migrations of the season.—April 18, Osprey; April 19, Myrtle Warbler, Horned Grebe, Chimney Swift; April 20, Catbird, Long-billed Marsh Wren, Lesser Yellow-legs, Blue-headed Vireo, White-throated Sparrow; April 21, Swamp Sparrow, Brown Thrasher, Green Heron, Yellow Warbler, Wood Thrush; Veery, Palm Warbler, Greater Yellow-legs; April 23, Rough-winged Swallow, Solitary Sandpiper, House Wren; April 24, Semipalmated Plover; April 26, Wood Duck, Cliff Swallow, Red-eyed Vireo; April 27, Kingbird Black and White Warbler, Black-throated Blue Warbler; April 28, Blue-gray Gnatcatcher, Blue-winged Warbler, Black-throated Green Warbler, Cape May Warbler, Bobolink, Nashville Warbler, Sora, Northern Parula Warbler; April 29, Black Tern, Oven-bird; April 30, Nighthawk, Virginia Rail.

May 1, Baltimore Oriole; May 2, White-crowned Sparrow; Northern Yellow-throat, Redstart; May 3, Blackburnian Warbler; May 4, Crested Flycatcher, Cerulean Warbler, Yellow-throated Vireo; May 6, Bay-breasted Warbler, Whip-poor-will; May 7, Semipalmated Sandpiper, Caspian Tern, Ruby-throated Hummingbird, Least Bittern, Pine Warbler, Florida Gallinule, Least Flycatcher; May 8, Canada Warbler; May 10, Rose-breasted Grosbeak; May 11, Magnolia Warbler, Least Sandpiper, Chestnut-sided Warbler, Wood Pewee; May 12, Olive-backed Thrush, Indigo Bunting, Northern Water Thrush, Acadian Flycatcher, Orange-crowned Warbler; May 13, Traill's Flycatcher; May 14, Golden-winged Warbler, Wilson's Warbler, Tennessee Warbler; May 16, Black-billed Cuckoo, Scarlet Tanager; May 17, Hooded Warbler; May 18, Red-backed Sandpiper, Kentucky Warbler; May 19, Prairie Warbler, Piping Plover, Philadelphia Vireo, Black-poll Warbler, Dickcissel, Gray-cheeked Thrush; May 20, Yellow-bellied Flycatcher, Mourning Warbler, Yellow-billed Cuckoo, Yellow-breasted Chat, King Rail, Short-billed Marsh Wren, Orchard Oriole, Henslow's Sparrow, Connecticut Warbler, Ruddy Turnstone; June 3, Olive-sided Flycatcher.

Last Dates of Winter Residents. May 28, Junco; May 7, Tree Sparrow, Brown Creeper, Golden-crowned Kinglet; May 13, Winter

Wren; May 19, Pine Siskin; May 20, Purple Finch, Red-breasted Nuthatch.

The Cedar Waxwings, which were so common during the early spring, have practically all left us now. The Broad-winged and Red-tailed Hawks, seen on May 7, seemed to be in migration. Several of the latter species were seen, also small flocks of the former amounting to about thirty.

Most of the transient species have left, and the summer season has begun in earnest. The first broods of Robins, Bronzed Grackles, Sparrows, etc., are old enough to look out for themselves, and their parents are evidently considering the responsibility of raising another.—HAROLD C. JONES, *Oberlin, Ohio*.

CHICAGO REGION.—The late spring failed to bring the expected warm weather, and altogether the spring season of 1923 was much colder than the average for this region. A review of the experiences of local observers would indicate that there was no time during the migration when birds seemed as common as they have in many former years. Nevertheless, all species one expects to find in the course of the migration have been represented by at least a few individuals, and nesting birds are present now in their usual abundance. The crest of the migration wave reached the Chicago region about May 19. On that day, working from before dawn until dark, Messrs. N. F. Leopold, Jr., J. D. Watson, Sydney Stein, and the writer recorded 113 species. This was a fairly representative list, as many types of territory were covered.

Common Terns arrived on April 17. Barn Swallows came on the 18th and Bank Swallows on the 19th. The 20th and 21st brought a number of migrants, some overdue. On these days the Green Heron, Yellow-legs, Greater Yellow-legs, Upland Plover, Spotted Sandpiper, Long-eared Owl, Chimney Swift, Swamp and Grasshopper Sparrows, Pine and Palm Warblers, Mockingbird, Brown Thrasher, House Wren, and Veery were first reported. The Mockingbird was found by Mr Stein at Washington Park on the morning of the 20th. Later in the day, several others, including the writer, had the pleasure of observing the bird. It was rather timid and

was not found on a visit to the same spot on the morning of the 21st.

The Green-winged Teal was reported from the marshes of the Little Calumet by Dr. Strong, on April 22. Ducks have been found commonly enough in that vicinity but have seemed scarcer in Hyde Lake and in Jackson Park than in ordinary years. Other Ducks reported about this time were the Ruddy, Redhead, Pintail, and large numbers of the Blue-winged Teal. Coots were very abundant. About April 28 hundreds could be seen on Wolf Lake and other small lakes in the region. A Florida Gallinule was picked up dead on the morning of April 24 after having flown into the glass of a store window. King and Virginia Rails were first reported from Hyde and Wolf Lakes on the 29th.

The first Winter Wren was reported on April 23. This species was at least three weeks overdue. Black Terns and Black and White Warblers arrived on the 28th. Yellow-headed Blackbirds were first seen on the 29th. These birds were seen at Hyde Lake where a colony has nested for several years. They are reported nesting this year. It is doubtful if the colony can remain much longer, as the growth of the city is encroaching more and more upon the Hyde Lake district, and a new subdivision now being opened will cover much of the nesting territory of prairie birds in that vicinity.

May 1 brought the Solitary Sandpiper, Yellow- and Black-throated Green Warblers, Lincoln's and White-crowned Sparrows, and Whip-poor-will. Dr. Eifrig reports the Connecticut Warbler and the Red-bellied Woodpecker on May 2. The Magnolia, Blackburnian, and Prothonotary Warblers appeared the same day, and by the 5th, Nashville, Black-throated Blue, Ovenbird, Waterthrush, and Redstart were added to the list. On the 6th, a Bewick's Wren was reported from Mineral Springs in the Indiana Dunes and another was reported from Dune Park on June 3. (Hunt and Eifrig.)

On the 5th, shore-birds were found in large numbers at Wolf Lake. Mr. Leopold and the writer identified Pectoral, Least and Spotted Sandpipers, Yellow-legs, Greater Yellow-legs, Killdeer and Semipalmated Plover in a great flock. All these birds were represented

in good numbers. Semipalmated Sandpipers were probably present but were not definitely identified. These small shore-birds were difficult to identify on account of their rapid motions and confusing abundance. Dozens were definitely Least, but none were positively Semipalmated. A small flock of Semipalmated Sandpipers was found in the same area on May 25.

A Great Horned Owl was seen by Watson and Leopold in Jackson Park on the morning of May 8. Traill's Flycatcher was reported from Glen Ellyn on the 13th, and from Jackson Park on the 19th. Goldfinches became common about May 14, and were among the most abundant species on the 19th.

The great wave of migration on the 19th brought with it the Nighthawk, Ruby-throated Hummingbird, Yellow-bellied Flycatcher, and Wood Pewee. One White-eyed Vireo was seen by Mr. Stein at Riverside. Immediately after the 19th, birds became noticeably less common. On the 20th, Mr. Hunt found great numbers of Gray-cheeked Thrushes near Hyde Lake. This Thrush seems to have been quite as common as the Olive-backed this year. Normally, the Olive-backed is very abundant in the parks and open woods in early May, but it does not seem to have reached its usual numbers this season.

There are few data at hand concerning nesting. The writer's trips afield and the meager reports received would indicate that all the commoner birds are nesting in their usual numbers. It should be a favorable year for the nesting birds as no severe storms have occurred since the latter part of April, when comparatively few of our birds were nesting.

Over Lake Michigan, these summer days, one sees non-breeding Herring and Bonaparte's Gulls, a stray Black Tern from the inland lakes now and then, Purple Martins, Bank Swallows, Chimney Swifts, Nighthawks, and occasionally the Great Blue Heron or the Black-crowned Night Heron. There is but a short period when summer residents only are found here, for the fall migration can be said to begin with the first southbound shore-birds which can be expected to arrive about July 15.—GEORGE PORTER LEWIS, *Chairman, Report Committee, Chicago Ornithological Society*.

MINNESOTA REGION.—Following the snow-storm of mid-April, the weather during the latter part of the month was mostly cool and raw, with northerly winds, but several warm days occurred, the 19th being exceptionally hot, with a maximum temperature of 83°.

May began with a week of changeable days and cool nights, followed on the 8th and 9th by a most unseasonable snow- and wind-storm which reached almost blizzard proportions in the northern part of the state and on the Great Lakes. The temperature was 30° at Minneapolis on the morning of the 8th, with a 50-mile wind blowing, and 31° on the morning of the 9th. Three inches of snow fell in the Lake Superior region, but at Minneapolis the fall was light and soon disappeared. This storm was general over the entire upper Mississippi valley and extended as far south as Illinois and Missouri. Cool days followed, with a 'white frost' on the morning of the 13th. From the 18th on to the end of the month, the weather was warm, the temperature reaching 80°+ on several occasions, and 90° at 5 P. M. on the 30th, the hottest day of the year up to that time.

Freight navigation opened on Lake Superior on May 10, though much drift ice was still present, and, on May 14, twenty-five lake freighters were caught in an ice jam at White Fish Point.

The hot spell at the end of May continued into June, and for three days the heat was excessive. The temperature on June 2 was over 90°, the hottest June 2 in the history of the Minneapolis Weather Bureau. A much-needed heavy rain fell all over the state on June 4, breaking the torrid spell and aiding in putting out numerous forest fires that had started in the northeastern counties. The remainder of the first half of June was pleasant,—seasonable days with morning temperatures of 50° to 60°.

Spring, this year began ten days to two weeks behind time, and this retardation, shown especially in vegetation, continued until the hot weather of late May, when there was a rapid development in all plant-life. There has been a deficient rainfall, and the whole state is abnormally dry. Rivers, streams, and lakes are low, and marshes and

meadows are much dryer than usual. For the first time in many years there were no spring or June freshets in the Mississippi River, and the customary April 'break-up,' with a big run of ice from the upper river was absent.

This spring, an interesting feature of the bird-life of the latter part of April was a great flight of Ducks of many species that passed northward throughout the state. The larger lakes, rivers, and sloughs were full of them for several days. The Lesser Scaup, Ring-neck, Mallard, and Teal predominated, but nearly all species were represented. Shore-birds also were seemingly more than usually abundant.

In spite of the late cold spring, there did not seem to be any great disturbance in the arrival of the birds. Most of them came very nearly on time and a few a trifle ahead. Thus a considerable wave of new arrivals reaching Minneapolis during the first days of May brought such birds as the Blackburnian, Blackpoll, and Magnolia Warblers, the Rose-breasted Grosbeak, the Blue-headed Vireo, the Gray-cheeked Thrush and the Least Flycatcher several days in advance of the usual date. In mid-May a great movement of migratory birds occurred in the eastern part of the state, which was especially characterized by the large number and variety of Warblers that it contained. Miss Densmore, of Red Wing, writes: "We had a small Warbler wave about May 4, but from the 11th to the 16th they came by the thousands. I found 18 species in less than an hour on the 16th, and the trees and bushes were full of them." Mr. and Mrs. Commons were visited by this same 'wave' at their summer home at Lake Minnetonka, and Mr. Commons reported, under date of May 16, as follows: "We had a wonderful wave of Warblers at Tanager Hill yesterday. They commenced coming about 9 o'clock, and by 10 o'clock the trees and shrubbery were full of them. There were several hundred individuals, and Mrs. Commons and I identified a total of 19 species. There were so many of them that their movements were like the changes of a kaleidoscope. We doubt if we will ever see such a sight again. Today there are several stragglers in evidence, but the army passed by with the

night." Alfred Peterson, of Pipestone, in the southwestern part of the state, reports that the greatest wave passed there on the 19th, and Miss Almira Torgenson, of Fosston, far up in the northwestern corner of the state, writes that, after a preliminary wave on the 15th, a last and much larger movement occurred on the 22d, bringing many Warblers, the Rose-breasted Grosbeak, Vireos, etc.

In compiling the following outline of bird arrivals, our own observations have been very largely augmented by full records generously supplied for the purpose by the following bird students, to whom special thanks are due: Mrs. Judson L. Wicks, Mrs. A. E. Cook, Mrs. I. L. Lindquist, Mrs. W. W. Davis, Miss Margarette E. Morse, and Mr. and Mrs. F. W. Commons, of the Minneapolis Audubon Society; E. D. Swedenborg, of Minneapolis; A. C. Rosenwinkel, of St. Paul; Mrs. Glen Eaton-Hodson, of Anoka; Miss Mabel Densmore, of Red Wing; Alfred Peterson, of Pipestone; Miss Olga Lakela, of Fairmount; Miss Almira Torgenson, of Fosston; and Miss Rose Smith, of Winona. The combined observations of these observers have given exact information in regard to 186 species, and while all the records will find a place in our museum files, only a brief summary, of course, can be given here. Space will not permit giving credit for each separate observation. Unless otherwise stated, the dates and notes refer to Hennepin and Ramsey Counties.

April 15, Pied-billed Grebe, Coot, Wilson's Snipe, last Redpolls. Soft Maples in bloom. April 16, Chipping Sparrow. April 17, Savanna and Swamp Sparrows, Purple Martins at Roseau. April 18, American Bittern, Cowbird, Rusty Blackbird. Many mourning cloak butterflies. April 20, Double-crested Cormorant, Field Sparrow (Red Wing), Bank Swallow, Myrtle Warbler. City elms in bloom; lawns getting green. April 21, Yellow-headed Blackbird, White-throated Sparrow, Winter Wren (Anoka). Bank Swallows building. April 22, Horned Grebe, Greater Yellow-legs; Grinnell's Water-thrush. Robin's nest completed. April 23, Migrant Shrike building. April 24, Louisiana Water-thrush. April 25, Brown Thrasher, Brewer's Blackbird, Florida Gallinule, Pec-

toral Sandpiper (large flock of 50 to 60 at Lake Vadnais). First dragon-flies. April 28, Palm Warbler. April 29, Clay-colored and Lincoln's Sparrows, Barn Swallow. April 30, House Wren (Red Wing), Least Sandpiper. Poplar, willow, and cottonwood catkins out at last; box-elder in full bloom.

May 1, Black and White, Nashville, Tennessee, Yellow, Blackburnian, and Black-throated Green Warblers, Rose-breasted Grosbeak, Towhee, Chimney Swift, Blue-headed Vireo, Solitary and Spotted Sandpipers, Common Tern. May 2, Orange-crowned, Magnolia, Chestnut-sided, and Blackpoll Warblers, Veery, Olive-backed Thrush, Wood Thrush (Red Wing), Least Flycatcher, Yellow-bellied Flycatcher, Yellow-throated Vireo, Cliff Swallow (Fosston), Black Tern. May 3, American Pipit (Red Wing), Catbird, House Wren. May 4, Cape May Warbler (Red Wing), Whip-poor-will (Red Wing), Red-headed Woodpecker. Killdeer's nest, four eggs (Anoka). May 5, Kingbird, Baltimore Oriole, Maryland Yellowthroat, Scarlet Tanager (Red Wing; May 12 at Minneapolis), Red-eyed Vireo (Red Wing; May 14 at Minneapolis). Large migration of Coots; last Tree Sparrow. Marsh marigold, rue, and wood anemones in full bloom; large bellwort just opening; the early shrubs and trees are beginning to leaf out. May 6, Warbling Vireo, Redstart, Long-billed Marsh Wren, Wood Thrush, Green Heron, Sora (Red Wing). Missouri currant (cultivated) in bloom. May 7, Wilson's Warbler, Harris's Sparrow (Fosston; first at Minneapolis May 10). May 8, snowstorm and high wind. May 9, Sora, Alder Flycatcher. May 10, White-crowned Sparrow, Parula Warbler, Ovenbird (Red Wing). First plum trees in bloom. May 11, Crested Flycatcher, Bobolink, Ovenbird, Pipit, Gray-cheeked Thrush. Mrs. Phelps Wyman saw a flock of about a dozen Red Crossbills in a tamarack swamp at Lake Minnetonka. Red-berried elder in bloom. May 12, Lark Sparrow, Hummingbird, Semipalmated Plover, Long-billed Dowitcher. Phoebe's nest, eggs. May 13, Indigo Bunting (Red Wing; at Minneapolis May 18), Blue-winged Warbler (Frontenac, Kilgore, and Badger). Chipping Sparrow building. Juneberry (*Amelanchier*) in bloom. May

14, Bay-breasted Warbler (Red Wing). Three-flowered geum, ground plum, and white birch trees in full bloom. Suckers spawning. May 15, Cape May and Bay-breasted Warblers, Blue-winged Warbler (Commons), a very rare bird as far north as Hennepin County, Wood Pewee, Black-billed Cuckoo.

May 16, Prothonotary Warbler (Red Wing), Night Hawk, Caspian Tern. May 17, Mourning Warbler, Last Junco. May 20, Philadelphia Vireo, Black-bellied Plover (Lake Chicago). May 21, Hudsonian Godwit (Pipestone), Ruddy Turnstone, Orchard Oriole. Meadowlark's nest; five fresh eggs. Rough-winged Swallows nesting. May 23, four pairs Wilson's Phalaropes at Long Meadow Slough. This bird is very expert at catching the numerous small insects that hover close over the water and at times gorges itself on such food. May 25, Red-backed and Semipalmated Sandpipers. May 28, two Yellow Warblers building, one in a dead bush entirely without cover. Columbine, lupin, yellow water buttercup, Solomon's seal, bastard toad flax, and sweet white violet in bloom. May 29, Wood Thrush incubating; two Horned Larks' nests with young nearly ready to leave; young Killdeers running about; Yellow Warbler's nest, four eggs; Meadowlark's nest, eggs hatching. May 30, Dickcissel.

June 1, yellow moccasin in bloom. June 9, Green Heron's nest with small downy young. Rose-breasted Grosbeak's nest, eggs just hatching. Young Grackles out of nest. Tufted loosestrife in bloom.—THOMAS S. ROBERTS, *Zoological Museum, University of Minnesota, Minneapolis, Minn.*

DENVER REGION.—One of the most fascinating things about field bird-work is the ever-present possibility of meeting a species new to the observer or to the region, even if one has worked in it for years. This happy experience was mine on May 12, when I saw a Redstart near the Platte River, about 20 miles south of Denver. Nearly thirty years have elapsed since I have seen this species in the field, so my first sight of a Redstart in Colorado was a real joy. The incident shows anew that one must often miss, by a narrow

margin, seeing a species; I should have overlooked the bird had not Miss Pru Bostwick and her Camp Fire Girls seen it first and followed it about until I arrived at the picnic. One often sees unexpected species when not at all on a bird-quest; thus, on June 11, while parking my car in front of my garage I saw a Lincoln's Sparrow in my yard, a very late arrival indeed. However, most of our migrants have been more or less late this year in reaching us: in a measure this is also true of the region about Grand Junction, for Miss Copeland's notes enable us to get a line on the arrival dates in her neighborhood. It seems to me that there has been more tendency for certain species to pass through Grand Junction in large waves than there has been in the Denver Region. While many Robins have been passing through this area all spring, there has been no large wave, and absence decidedly noticeable when one has witnessed the enormous numbers of Robins seen periodically in the city in the past. On April 12, thousands of Robins were seen in and about Grand Junction; amongst them were to be seen many which seemed to be typically the eastern subspecies, showing especially very characteristic white tail-markings. This may mean that the subspecies is now infiltrating the western slope as it has undeniably penetrated into the plains and foothill regions. Denver has had notably fewer Pine Siskins this spring, though about May 7, hundreds were in Grand Junction, most of which were gone by June 9.

Denver's weather conditions, on the whole, were mild, clear, and with moderate temperatures until the second week of June when much rain gave us low temperatures, yet migration went on without interruption.

All the small lakes about Denver were visited by many Gulls on and about April 28; they stayed but a few days and seemed to have been Ring-billed Gulls. On May 2, J. T. Nichols saw three Least Sandpipers on a reservoir not far from the eastern line of the city; this little wader is uncommon near Denver. There have been more Cowbirds in and close to town than for a number of years past; Mr. Nichols and the writer found a flock of 25 or more during the same drive on which the Least Sandpipers were noted. I

have also seen them on several occasions since then. The Cowbird is most erratic in its visits to this region; I would not be surprised if I did not see it again hereabouts for two or three years.

Twenty years ago and before, I never saw a Violet-green Swallow east of the foothills; now it comes to Denver's parks every year and becomes increasingly more common as one approaches the mountains. This beautiful Swallow adapts itself well to human habitations and might easily be taken for a Tree Swallow. The species appeared earlier at Grand Junction than at Denver; hundreds and hundreds were flying over the Grand River Valley on May 22, yet at the same time there were in Denver's area only a scattering few, even well up in the mountains, as, for example, a Nighthawk. It would be a welcome compensation if this Swallow should spread eastward and fill the place of the Tree Swallow now driven out by the English Sparrow. What this Sparrow might do to the Violet-green species is not to be predicted, but I would be willing to place odds on the Sparrow.

I have seen no Lazuli Buntings here, though these birds arrived in Grand Junction on May 10, a week later than usual. On the other hand, our fine black-headed Grosbeak arrived in Denver as early as May 12, and not until the 20th in Grand Junction.

It is possible that the earlier arrival of the Violet-green Swallow on the western slope and the Black-headed Grosbeak on the eastern slope is due to the fact that one probably travels to its winter habitat via the Pacific route, while the other works southward over the United States east of the Rockies. Perhaps the banding now being done at Grand Junction will help to clear up this problem. The earliest arrival of the Broad-tailed Hummingbird, in this region, coming under my notice was in the foothills about 25 miles southwest of Denver, on May 19. I take it that this Hummer is more an eastern slope species than a western one, yet it appeared in the upper Grand River valley on May 1.

A study of Miss Copeland's notes makes very real the need of studying Colorado migration problems *per se*, and as part of the larger migration question of the whole North

American area. It is to be regretted that there are so few doing bird-work on the western slope of Colorado, and, too, that there is but one banding station in this large expanse of our state, for it has rich possibilities of productive work.

Bullock's Oriole reached Denver not later than May 16, but arrived in Grand Junction on May 9, and by May 15 was unusually common there: it seems to me that there are very few about Denver this year. The species is nesting in the Grand River Valley in large numbers. The ratio between White-crowned Sparrows and Gambel's Sparrows in migration through my region seemed dislocated this season; in ordinary years I see many more Gambel's than White-crowned Sparrows here in the spring migration, but this spring I saw Gambel's but once, on May 27. The White-crowned was common during every week in May, being seen last on May 24.

It is many years since I have seen more than a single Raven at a time in this area, hence my surprise to see a flock of 9 hovering over the river at Nighthawk. This sight brought back pictures of such, and still larger, flocks of these birds on the plains many years ago when cattle were abundant on the open range and much carrion fell to the bird's lot. This flock of Ravens was under observation two days, viz., on June 2 and 3.

Several species lingered in this region much beyond their ordinary wont, notably the White-crowned Sparrow, Rock Wren and Green-tailed Towhee. I suspect that this last species would breed in our immediate vicinity were there fewer humans about. It is a secretive bird and not given to the open. There have been very few Warblers noted this season in Denver proper: I have seen only Audubon's, and the Orange-crowned in the city. Of course, this may have been the result of chance, and insufficient field-work, yet in former spring migrations I have seen many more with, perhaps, fewer hours' observation.

It is gratifying to report that many young Robins were out of the nests by June 1 and were vociferously proclaiming their needs and presence.

On April 29, three Cinnamon Teal were studied for some time in a small reservoir

near Parker; such an occurrence was really extraordinary, because this Pacific Slope Duck is not common east of the Continental Divide. The records of one duck-shooting club, located near Denver, show that in nineteen years' shooting only ten of these Teal were killed on its preserve.

At this writing many Yellow-throats are nesting in suitable situations close to the outskirts of Denver; their rolling songs add much to brief, stolen-before-dinner motor trips for birds.

To my mind the very handsomest of our western birds is the Western Tanager; the number of splendidly colored males noted here this spring was very large, probably more so than in any previous year's experience. They were relatively common in our parks from May 18 to 24, but by June all seemed to have gone up into the neighboring higher regions. To see two or three of these strikingly colored males is indeed a treat.—W. H. BERGTOLD, *Denver, Colo.*

PORTLAND (OREGON) REGION.—The season in the Portland, Ore., district was marked by an unusual Warbler migration. Appearing in considerable numbers on April 22, there were Warbler flights until May 6, which reminded me of similar migrations in the Mississippi Valley more than any I have seen since being in Oregon. While we do not have the great variety of Warblers found in the East, those present seem to be in much greater numbers than usual. On April 22, there was noted in the flight, Lutescent, Black-throated, Gray, Audubon, and Myrtle Warblers. On April 30, Yellow and Macgillivray Warblers were noted in addition to these. S. G. Jewett reported large numbers of Myrtle Warblers on April 22. This seems to be unusual, although possibly this Warbler is more common than we have supposed.

On May 12, a pair of Arkansas Kingbirds were noted along the road in Polk County, about 70 miles south of Portland. This bird is not a common species in western Oregon, although very abundant in the southern and eastern parts of the state.

Birds of all kinds arrived about on the usual schedule, and we have been going through the usual Warbler, Sparrow, and

Swallow migrations which we have here. These, of course, are not nearly so marked as the similar movements in the eastern states.

Band-tailed Pigeons are increasing in numbers each year. A trip through the length of the Willamette Valley, on May 11 and 12, showed them to be much more abundant than I have previously noted them at this time of the year. On May 30, a flock of Band-tails, estimated to contain 1,000 birds or more, was found on the Columbia River bottoms, near Portland. This spot has been one of my favorite tramping-grounds for several years, and I have never seen a fourth this number of these birds there before.

Young Blackbirds were noted out of the nest on May 24, and by June 1 straggling flocks, composed of a dozen or more birds, were becoming evident. By June 5, Black-bird flocks were among the most common evidences of bird-life throughout the countryside.

On May 30, on a trip to the Columbia River bottoms, Black-headed Grosbeaks and Bullock's Orioles both seemed more common than in previous years. On June 3, the first Night-hawks were observed about Portland, and by the 5th they had become common. From now on through the summer, Night-hawks, Oregon Vesper Sparrows, and Nuttall Sparrows will furnish most of the visible evening bird-life.

On June 5, a 100-mile trip through the north end of the Willamette Valley, in the vicinity of Portland, showed Lazuli Buntings, Brewer's Blackbirds, Western Meadowlarks, Oregon Vesper Sparrows, Nuttall Sparrows, Robins and Western Bluebirds to be the most conspicuous forms of bird-life along the roadsides at this season of the year.

In addition to the young Blackbirds, young Robins, Streaked Horned Larks, and Oregon Vesper Sparrows have been very conspicuous the last few days.—IRA N. GABRIELSON, *Portland, Ore.*

SAN FRANCISCO REGION.—The winter visitants which were still in the San Francisco Bay Region at the time of the preceding report were last seen on the following dates: Ruby Kinglets on April 16, Intermediate Sparrows on April 18, Fox Sparrows on April

19, Golden-crowned Sparrows on April 20, and White-throated Sparrow and Hermit Thrush on April 25. The White-throated Sparrow under observation was banded in January, 1922, and although ranked as a straggler in California, returned to the same feeding-table on November 9, 1922, remaining with a few intermissions throughout the winter.

Summer visitants were recorded as follows: Black-headed Grosbeak, Tolmie Warbler, and Russet-backed Thrush on April 19, the last named beginning to sing on May 8; Olive-sided Flycatcher on April 24, Bullock Oriole on April 25 and the Western Wood Pewee and Lazuli Bunting on May 3. Two transients noticed were the Western Tanager on April 19 and the Black-throated Gray Warbler on April 25.

No unusual nesting-dates have come to my notice, but perhaps the average dates are of more value for such a report. A Meadowlark's nest, perfectly domed, contained six eggs on April 25; an Allen Hummingbird's nest still contained its two eggs on April 26; on the same date Bush-Tits were observed feeding young in two different nests and a family on the wing was seen on May 3. The Titmouse's nest mentioned in the last report was deserted by the young on May 8, and young Blue Jays were seen on May 9. On May 11 a band of tiny Quail were vainly trying to follow their parents up over a cement curb which held them prisoners on a macadamized road. Thrashers were feeding full-grown young on May 28. During the week preceding, one of the parents of this same brood was so hard pressed for food that it ate the canary seed on the bird-table. This was the only food that was not immediately carried away by the Blue Jays, and the Thrasher seems to have discovered, by accident, in its efforts to get at the fine crumbs under the seeds, that a hard stroke of the bill rendered the seed edible. After that, definite experiments with seed alone proved that the seed were being eaten.

A visit to Baumberg on April 25 showed Avocets still feeding in the pond and a flock of about 20 Hudsonian Curlew in the meadow. Forster Terns, Bonaparte Gulls, Surf Scoters, and White-winged Scoters were seen on San

Francisco Bay on April 26, and, on the same date, on Lake Merced, three kinds of Grebes—Western, Eared and Pied-billed—were seen and also one Common Loon. In Golden Gate Park, on April 29, baby Coots were still in autumn-leaf plumage.

Since no reports are sent in from the San Joaquin Valley, it may not be out of place to include an item on the birds of the Los Banos region. Much of the land previously under water has been drained, but there still remain tracts where the water stands from 4 to 18 inches deep, with here and there a deeper pond. These tracts are still inhabited in summer by Black-necked Stilts, Avocets, White-faced Glossy Ibis, Black Terns, and a few Ducks. On May 27 two nests of the Black Terns were found, one containing two eggs and the other two young, one not yet dry from the shell. Black-necked Stilts protested against our presence at every step but no nests were found. Avocets were few in number, only two or three pairs being seen during the morning. A colony of Ibis seemed to center in a marsh too deep for wading. A mother Gadwall went through all the familiar antics in its effort to lead us away from its four downy young.

Many nests of Red-winged and Tricolored Blackbirds were found, but most of them were in course of construction or contained incomplete sets of eggs. There were also many pairs of Yellow-headed Blackbirds and any number of Killdeer. In the dry fields, Burrowing Owls were very abundant; most of them seemed to be feeding young which backed down into their holes when we approached. Some of the holes were surrounded by insect remains, but others bore evidence of more cannibalistic tendencies, judging from the tell-tale feathers of blackbirds.

Of the three Herons, the Black-crowned Night Heron was the most common, 16 being seen in one frog-pond. Wherever there were trees, Bullock Orioles, Western Kingbirds, and California Shrikes were abundant. Of the 6 Oriole nests found, two were built in the clumps of mistletoe in the oak trees. Shrikes were feeding full-grown young.

At one of the Miller—Lux ranches near Gilroy, nearer the coast, was the usual

colony of Yellow-billed Magpies, with nests in the live-oak trees.—AMELIA S. ALLEN, *Berkeley, Calif.*

LOS ANGELES REGION.—Mid-April in southern California, with the overlapping of the seasons of winter and summer bird visitors, finds the bird-watcher's interest at the maximum. One who would get exact dates of arrivals and departures must be alert and active.

A visitor to Catalina Island, April 12-14, brought to me the first report for the season of the Lazuli Bunting. On the 15th I found it in the foothills of the Santa Monica Mountains and thereafter it was reported frequently from many localities. Lawrence Goldfinches, Black-headed Grosbeaks, and Black-chinned Hummingbirds appeared in numbers on the above dates. Costa Hummingbirds and the Rufous or Allen were at this time very numerous.

April 16, a pair of Chats was seen, carrying nesting material. On this date the Gambel Sparrows were for the first time absent from the writer's garden, their usual date of departure being the 19th. On the 20th, 1 shy bird, that had probably wintered further south, made a brief stop for food and drink, and on the two succeeding days 3 others were seen. April 17, on a trip to Elizabeth Lake, via Bouquet Canyon, returning through Mint Canyon, but 1 Gambel Sparrow was seen. He was one of a party of travelers, apparently journeying northward in company, that were seen by the birding party near the summit of the range. The flock comprised a large number of Chipping Sparrows, many Golden-crowns, a pair of Cassin Finches, a few Audubon Warblers, Pine Siskins, and Western Bluebirds. April 22, the trip was repeated, and no birds at all were found at this place. On the latter date, 2 small coveys of Mountain Quail were seen near the summit of Mint Canyon Pass. In the Soledad, a band of Blackbirds numbering many hundreds included many handsome Yellow-headed ones. The poplar trees along the lower course of the stream that flows from Bouquet Canyon were vocal with the songs and calls of the Bullock's Oriole, the Ash-throated Flycatcher, and the Western Kingbird. The uncultivated open

fields nearby, carpeted with blooming thistle sage, white lupine, scarlet bugler, tree poppy, and myriads of lesser flowers, were the haunt of Hummingbirds—Rufous, Allen, Costa, and the Black-chinned being noted during a short walk among the colorful beds of fragrant bloom. Five Rough-winged Swallows were seen near this place, as well as several Road-runners. Fifteen Band-tailed Pigeons were found in the Newhall Hills where Warblers were numerous. Among them were 6 Audubons in extraordinarily brilliant plumage.

The record of winter visitant land-birds closes April 26, with a pair of Audubon Warblers (very brilliant, black areas on breast very pronounced), a pair of Cassin Finches, numbers of Pine Siskins, 1 Gambel Sparrow, and 6 Golden-crowns. The latter were seen in the brush of foothills, the others among the willows by the Los Angeles River, where were seen also the first Western Tanagers and the Wright Flycatcher. Lawrence Goldfinches were common, in company with the Willow and the Green-backed, in one instance a number of these and the Pine Siskins coming together to bathe in clear shallow ripples, overhung by seed-bearing weeds.

The only report of the Western Blue Grosbeak to date comes from San Timoteo Canyon, where two were recorded April 19. Russet-backed Thrush first appeared April 23. Two individuals passed through the writer's garden in May, on the 14th, and 23rd, respectively. On the 19th they were established and in full song in Verdugo Woodlands, a small area where they have nested for many years, being still undisturbed.

April 24, a Lincoln Sparrow appeared at the bath in the writer's garden, the first ever noted there. It remained a short time, foraging about, affording excellent opportunity for complete identification.

Another unusual visitor was the White-crowned Sparrow (*Zonotrichia leucophrys leucophrys*), first seen December 15, when two individuals were observed, and recorded in a magazine of western ornithology. It was hoped that if a number of the species were wintering in the vicinity others might find their way to this feeding-station. This hope was realized as follows. I quote from my

note book. "January 22, again saw White-crown; notified Mrs. A., who came, saw, and described it. January 27, White-crown again came to garden, seen by Mrs. A. and Miss V. February 11, White-crown came at 11 o'clock, very shy, hastily snatched crumb and scurried to cover; noted white edge of wing, wide white stripe at side of head and black before eye. March 19, White-crowned Sparrow ate bread from shelf near window; median crown stripe showed some traces of brownish; white stripe at side of head ended at eye; all black before eye; white at edge of wing very noticeable." It is matter for regret that these birds were not trapped and banded for further observation or verification.

On June 8, many Western Bluebirds were seen, with full-grown young, in a beautiful open valley within the coast mountains of Ventura County, at an altitude of 1,000 feet, where they find nesting-sites in the abandoned holes of the California Woodpeckers in the fine old valley oaks of the region. June 10, three Slender-billed Nuthatches were seen there. Ash-throated Flycatchers are common, as are also Western Kingbirds and Bullock's Orioles. Chipping Sparrows were in song, foraging with the Lark Sparrows in the fresh stubble of the grain-fields, now being harvested. High up on a cliff in Big Tejuca Canyon, Ash-throated Flycatchers were seen on June 10, feeding young at what appeared to be a nest-hole. The choice of such a site for a nest by this species has not been noted heretofore by any of our group. Water Ouzels have again nested in one of the canyons of the Sierra Madres, a brood of three having been reared at the waterfall not far from the canyon entrance.

Interest in the water-birds has centered in the assemblage of many species in the marshes and shallow lagoons near Play del Rey. Avocets are nesting there in considerable numbers, as sets of eggs collected give evidence. Black-necked Stilts also appear to be nesting. Marbled God-wits, Hudsonian Curlew, Forster's Terns, Bonaparte Gulls, a few Yellow-legs, and at least 1 Long-billed Dowitcher have remained there to date. On June 3 the writer saw there 1 Wilson and 4 Northern Phalaropes.—FRANCES B. SCHNEIDER, *Los Angeles, Calif.*

Book News and Reviews

THE BIRDS OF CUBA. By THOMAS BARBOUR. *Memoirs of The Nuttall Orn. Club*, No. VI. Cambridge, Mass. 4vo. 141 pages. 4 plates.

Although Dr. Barbour is by profession a herpetologist, this book reveals him as a thoroughly sympathetic student of birds in nature. Scales may appeal to him more strongly than feathers, but we doubt if any reptilian voice ever aroused within him the emotion with which, for example, he writes of the song of the Solitaire. So, while gathering, on many expeditions, material for his standard 'Herpetology of Cuba' (*Mem.-Mus. Comp. Zool.* xlvii, No. 2); Barbour has had an eye, an ear, and a heart for birds. The published results of his observations are not, therefore, merely statistical statements but colorful, biographical sketches of the bird in its haunts.

There was need for this supplement to the work of that fine old Cuban naturalist, Juan Gundlach. Already, we learn, the lowland forests have largely disappeared before the demand for increased acreage in sugar-cane, and the forest-haunting birds will go with their haunts. This and other general phases of the subject are discussed in an admirable 'Introduction' which we regret does not include a distributional and seasonal analysis of the Cuban avifauna.—F. M. C.

LIFE HISTORIES OF NORTH AMERICAN WILD FOWL. ORDER ANSERES (part). By ARTHUR CLEVELAND BENT. *Bull.* No. 126, U. S. Natural Museum, 1923. x + 246 pages. 46 plates.

This bulletin continues Mr. Bent's life histories of North American birds of which three parts, forming Bulletins Nos. 107, 113, and 121, have already appeared. Beginning with the Mergansers, and following the order of the A. O. U. Check-List, it treats of the Ducks up to the Golden-eyes. This is a group with which Mr. Bent is especially familiar, though, as in his preceding volumes he has added to his own observations all the available information, both published and unpublished, required adequately to reflect

existing knowledge. We trust that the edition of this work is large enough to meet the demand for it which is sure to arise among sportsmen.—F. M. C.

ROOSEVELT WILD LIFE BULLETINS. No. 3, March, 1923. 8vo. pp. 229-386; 4 colored plates, 1 map, numerous half-tones. No. 4, March, 1923. pp. 387-526; 4 colored plates, numerous half-tones. Published by Syracuse University, Syracuse, N. Y.

Here are two interesting publications. Number 3 contains what in effect is a handbook of 'The Summer Birds of the Alleghany State Park' by Aretas A. Saunders. This includes an excellent Introduction on the various factors governing the bird population of the Park, advice to students, a Field Key and fully annotated list of 105 species of birds. There are half-tone cuts showing characteristic haunts and four capital colored plates by Edmund J. Sawyer, in which birds of similar haunts are grouped together. The figures are small but well-drawn and well-printed and they form not only a ready aid to identification but a graphic means of conveying information in regard to haunt and association. One learns, for example, that Hooded Warblers and Juncos are summer neighbors.

Sawyer also contributes to this Bulletin an important paper on 'The Ruffed Grouse with Special Reference to its Drumming' with many photographs of the drumming bird made at short range. It is based on prolonged, patient observation, and is written with authority. Sawyer concludes that "the striking of the air alone with the wings is practically the sole cause of the sound."

Bulletin No. 4 is devoted to Adirondack bird-life with an article by Perley M. Silloway 'On the Relation of Summer Birds to the Western Adirondack Forest' and 'Notes on the Relation of Birds to Adirondack Forest Vegetation' by Charles C. Adams. Mr. Silloway follows a subjective treatment of his theme with a well-annotated list of 101 species. The brief description given of each

species, together with four of Sawyer's useful habitat plates, makes this paper an excellent one for the field student. Dr. Adams well says: "It is desirable that foresters possess a proper idea of the general importance of birds to the forest, just as a similar appreciation of the influence of forests upon birds is needed by students of birds and by the public in general."

It was eminently fitting to reprint in this Bulletin the four-page leaflet by Theodore Roosevelt and H. D. Minot on 'The Summer Birds' of the Adirondacks in Franklin County, N. Y.' This paper, which was privately issued in 1877, was, we believe, Col. Roosevelt's first appearance in print.—F. M. C.

BIRDS OF THE PACIFIC COAST. By WILLIARD AVRES ELIOT. With 56 color plates by BRUCE HORSFALL. G. P. Putnam's Sons, New York, 1923. 16mo. xviii + 211 pages.

'Common Birds of the Pacific Coast' would more nearly describe the contents of this book than the title chosen, since, as we learn from a detailed subtitle, only 118 species are treated. The order of arrangement follows a 'whimsical plan' of the author's who begins with the commoner, smaller birds and ends with the larger less familiar ones. The text is lacking in both literary and ornithological distinction, but Horsfall's usually excellent colored figures of all the species included and the small size of the book should make it a convenient pocket guide for beginners in bird study.—F. M. C.

BULLETIN OF THE AUDUBON SOCIETY OF WESTERN PENNSYLVANIA. No. 1, April, 1923. Pittsburgh, Pa. 8vo. 54 pages. 1 colored plate, 9 half-tones.

There are papers in this Bulletin on field methods, nesting-boxes, bird-baths, cats, cemeteries as sanctuaries, evergreen trees as protectors of birds, and fruit trees for birds, all containing advice and suggestions for bird students and 'bird gardeners,' but the most significant bit of information we find in it is the statement that the dinner called for the organization of this Society was attended by over 500 persons! It was worth publishing this Bulletin merely to give publicity to this fact alone. With such a widespread interest to begin with, this

Society should do much to establish proper relations between bird and man in western Pennsylvania.

Any bird club is fortunate which can number among its members an ornithologist who is also an artist. This Society, therefore, may be congratulated on having as its statistical secretary Mr. George Miksch Sutton, who supplies several excellent illustrations for this Bulletin, including a colored frontispiece of the Cardinal.—F. M. C.

ANNOTATED LIST OF THE AVERY BIRD COLLECTION IN THE ALABAMA MUSEUM OF NATURAL HISTORY. By ERNEST G. HOLT.

Dr. William C. Avery is known to the older ornithologists of today as a practising physician of Greensboro, Ala., who devoted his spare time to the study of birds and who was ever ready to respond to a call for information or for specimens from his locality. After his death the state of Alabama purchased his collection of 900 birds and it is now in the State Museum at University. The present list of the 216 species and subspecies it contained is accompanied by many notes from Dr. Avery's journals, and we thus have on record the results of his years of bird-study in a state where local ornithologists are almost unknown.—F. M. C.

Bird-Lores Wanted

If any of our readers have copies of the following numbers of BIRD-LORE which they care to dispose of, will they please communicate with those whose wants we print below:

Vols. I, II, and III, complete or parts. Vol. IV, Nos. 1 and 2; Vol. VII, No. 1; Vols. IX and X, complete or parts; Vol. XI, Nos. 1, 5, and 6.—W. H. Broomhall, Stockport, Ohio.

Vol. XIX, No. 6.—H. Mousley, Hatley, Quebec.

Vol. III, No. 1. Will pay \$1.—L. E. Thomas, care of J. Horace McFarland Co., Harrisburg, Pa.

Vol. I, Nos. 3, 5, 6, and Index; Vol. II, No. 2, and Index; Vol. III, Nos. 1, 2; Vol. VIII, Index; Vol. X, No. 2; Vol. XIII, No. 5.—Karl A. Pember, Woodstock, Vt.

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A Bi-Monthly Magazine

Devoted to the Study and Protection of Birds

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

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Bird-Lore's Motto:

A Bird in the Bush Is Worth Two in the Hand

ON the afternoon of May 27, some 300 people gathered on the sunny slopes of Memorial Field to lay a flower or a tribute on the grave of John Burroughs. Simple services were conducted by the Burroughs Memorial Association, but it was the spirit of Burroughs himself that led them. How plainly we could see him there on Boyhood Rock! How clearly his voice reached us through the songs of birds, through the flowers and trees, the rounded hills and rolling fields in which he has given us an everlasting heritage. Surely no one left Memorial Field that day without feeling the richer for having been there.

THE Editor assumes full responsibility for the error which labeled Dr. Wilson's photograph of the Northern Phalarope in May-June BIRD-LORE "Red Phalarope." At the same time he expresses his appreciation of the forbearance shown by the many readers who, seeing this slip, resisted the temptation to call attention to it. In this instance the mistake was too glaring and obvious to be misleading. Indeed it was in a sense corrected by Dr. Wilson's text and the excellence of his photograph. It is not often, however, that misstatements carry their own antidote, and BIRD-LORE's patrons will be doing a real service to their fellows as well as to the magazine's staff if they will promptly challenge any observation or identification appearing in our pages, the accuracy of which seems questionable.

We expect our readers to impose upon us the same standards we set for our contributors. The printed page gives no hint of the rejected manuscript; the published record no indication of the numbers sent in perfect good faith but all too clearly the combined result of faulty observation and injudicious conclusion.

Circumstances often prevent us from seeing an unrecognized bird with sufficient definiteness to gain a clear conception of its characters. That is our misfortune. But it is our fault if we then proceed to identify it as a species which the books tell us lives in a distant part of the country.

In these sight identifications too little attention is paid to probability of occurrence as indicated by a bird's known range. The chances of our finding a bird far beyond the limits of the region which it normally inhabits are so small that the field student who sees half a dozen of these 'accidental visitors' in a life-time of study may count himself fortunate. Their satisfactory identification in nature must rest upon an adequate opportunity for unhurried, detailed, objective observation recorded on the spot. Even then one's past life enters into the equation! "What would you say," said an enthusiastic bird-student to an ornithologist near New York, last May, "if I should tell you that I had just seen a Black-throated Gray Warbler?" "I should say, Madam," he replied with unnecessary candor, "that you were of unsound mind."

Give, therefore, attention to that part of your textbook which recounts a bird's geographical distribution as well as to that which describes its colors, with the assurance that if you accept as literal the information you find there you may be deprived of some unwarranted thrills, but you will greatly lessen the chances of misidentification. Give due consideration also to the season in which a bird may be expected to occur and by this additional restriction of the field of probabilities you will still further decrease the possibilities of error. The bird student who attributes a winter Chickadee's double-noted whistle to the Pewee is unpardonably careless.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by A. A. ALLEN, Ph.D.

Address all communications relative to the work of this department to the Editor, Cornell University, Ithaca, N. Y.

AUGUST SHORES



AUGUST SHORES TEEMING WITH SAND-
PIPERS, PLOVERS AND HERONS

When the strain of molting silences most of our birds and drives them into seclusion during the hot dry days of August, bird-hunting is at low ebb. A tireless Red-eyed Vireo still preaches in the top of the maple, a lonesome Wood Pewee calls from the orchard, and an undaunted Song Sparrow, with but half a tail, still tries to make the garden seem cheerful, but the woodlands seem deserted and the fields echo only the chirp of the crickets and the droning of the locusts. Where then shall we direct our steps during August and early September when we wish to study birds?

Of course, we might study the molting of the birds and find much to interest us, even with the Sparrows in the street (see *BIRD-LORE*, Sept.-Oct., 1920), but such studies scarcely satisfy the desire of most of us for making new friends and we

prefer to exhaust Nature's offering in that field before starting another.

Let us, therefore, make for the seashore, or the lakeshore, or for any extensive low-lying mud-flat that the drought of summer has recently left exposed, for there we will find birds in abundance. We will not choose the bathing-beaches, nor yet the rocky shores, but rather the muddy, oozy areas that are shunned by most people as unsightly and uninteresting. There, running along windrows of seaweed, chasing the receding waves, or making tracks in the soft mud are troops of charming little Sandpipers and Plovers. To the casual observer they all look alike except that some are larger than others. Indeed, even to the real bird observer, trained in the ways of Warblers and

Sparrows, they constitute a post-graduate course in bird-study. One need not expect, therefore, to recognize them all the first season. Many of them may pass unrecognized for years until familiarity with the commoner species leads one to scrutinize them more closely and pick out from their very midst species that had heretofore been unsuspected.

Early in August, many of the returning shore-birds will still be wearing some of their spring feathers and can be identified more easily than later on in their fall plumages when all are clad in varying shades of gray or brown and when even the Spotted Sandpiper has lost his spots.

As early as the last of June or first of July, some of the Sandpipers start back from their summer homes in the far North, and even where there are no mud-flats to attract them, they can frequently be heard on cloudy nights calling as they pass overhead on their long journeys. By the middle of July, numbers of them have congregated on favorable feeding-areas, even as far south as Virginia, and by the first week of August the migration is in full swing and suitable spots throughout the United States and Canada teem with them. Naturally, some species migrate later than others and some have much more extended migration periods. Seldom, for example, do Red-backed Sandpipers become common in the United States before October, while Sanderlings and Ring-necked Plover may be found from early August until late October. All of the

shore-birds are great travelers, often flying long distances over the open sea. Regularly, for example, do the Golden Plover fly from Labrador to northern South America, and their western cousins from Alaska to Hawaii, apparently in a single flight, distances of from 2,500 to 3,000 miles. Some of the shore-birds winter along our Gulf Coast but the majority continue their journeys to northern South America, and some wander to Chile, Argentina, or even Patagonia.

But let us return to the nearest shore or mud-flat and see what we can find. Perhaps we are already familiar with the Killdeer Plover and the Spotted



LOOKS LIKE A YELLOW-LEGS, BUT
THE DISTINCT WHITE LINE OVER
ITS EYE PROCLAIMS IT A STILT
SANDPIPER

Sandpiper because they have been with us throughout the summer. At any rate they are good birds to begin with so that we can learn to distinguish quickly between a Plover and a Sandpiper. The most obvious difference, aside from coloration, is the shorter, heavier bill of the Plover, which is somewhat swollen toward the tip. Differences in bills are not always conspicuous



HE DISLIKES YOUR INTRUSION. KILLDEERS ARE ALWAYS SCOLDING

but they play such an important part in the identification of shore-birds that we must train our eyes to appreciate them. Of course, the Killdeer does not resemble the Spotted Sandpiper in the least except that both have long legs, for he is brown above while the Sandpiper is grayish olive. Moreover, the Killdeer has two conspicuous black bands across his snowy breast and a white ring around his neck, and he is not forever teetering like the Spotted Sandpiper, though he does occasionally jerk his head. It is this habit of teetering that has given the Spotted Sandpiper many of its local names like 'tip-up' and 'teeter-tail.' The name 'Spotted' Sandpiper is a misnomer in the fall for, while the spots are conspicuous enough on the breast in the spring, when we look for them during August and September we will strain our eyes in vain as they are lost during the post-nuptial molt. The young birds as well are without them until the following spring.

There are other birds that resemble the Killdeer much more than does the Spotted Sandpiper, of which the Ring-necked or Semipalmated Plover is by far the commonest. Indeed, he looks like a miniature edition of the Killdeer, with the exception that he has but one band across his breast instead of two. The Piping Plover is similar to the Ring-neck but much paler and is almost

unknown, except along the Atlantic coast and the shores of the Great Lakes. The larger Golden and Black-bellied Plovers are much more Sandpiper-like in their fall plumage than any of the Killdeer group for they have the same checkered gray and black and white backs typical of so many of the Sandpipers. Especially might they be confused with the Yellow-legs if only coloration were



HE HAS LOST HIS SPOTS. A SPOTTED SANDPIPER IN FALL PLUMAGE

considered, but, fortunately, they have the typical Plover bill and the larger heads and chunkier bodies that go with it, while the Yellow-legs have the long, pointed bills and the lithe bodies typical of the Sandpipers. The two Plovers resemble each other very closely, especially in the fall plumage, when there is little gold left in the plumage of the Golden and when the black underparts of both species have been replaced by white or whitish. The best field-marks are the smokier underparts of the Golden Plover and the black axillars (under the wing) of the Black-bellied Plover that show in flight.

The notes of the different Plovers are exceedingly characteristic but much more difficult to transcribe to paper than they are to imitate by a whistle. Plovers always respond to a whistled imitation of their calls and, when not frightened, will often circle time and again over one's head, searching for the source of the notes. The Killdeer gets its name from its high-pitched *kill-dee, kill-dee*, but it has several shorter notes and a rolling twitter that are used to express different feelings. The Ring-necked Plover has a very mellow, liquid call that might be represented by the syllables *to-where*, the second slightly higher pitched, and the Piping Plover has a series of liquid peeping notes. The Black-bellied Plover has the wildest note of any, a loud clear questioning whistle of three slurred notes that seems to ask the question 'where-are-you?' a question that is best answered about daybreak some stormy morning in late October

when the approach of winter drives down the last big wave of Plover and Yellow-legs along with the hurrying flocks of Teal and Pintail.

The identification of the Sandpipers is not so simple as that of the Plovers but it is greatly facilitated by knowing one species well. If one can always recognize the Spotted Sandpiper at sight, in flight or at rest, in spring plumage or fall, and has learned all of its various call-notes, he is in a fair way to learn to know all the species. One should not rely entirely upon its teetering to identify it but should recognize its characteristic 'quivering' flight as well, and should see the two narrow gray lines that cross each wing. He should be able to distinguish its call of *weet-weet*, as it takes flight, from the similar *peet-tweet* of the Solitary Sandpiper, and should never forget its sweet twitter, *wee-weet-weet-weet-weet*, given with a rising inflection, or *weeta-weet-weeta-weet-weeta-weet*, with the accent on the *weet*. The Spotted Sandpipers are rather solitary, never gathering in large flocks like most of the other species, preferring fresh water to salt and found as frequently along small streams as about lake-shores or mud-flats. In this respect they resemble the Solitary Sandpiper, a bird that is often overlooked though it passes through in considerable numbers during May and again during July and August. The Solitary is about the only species that one finds about woodland pools, most shore-birds avoiding trees as a hen does water. It is frequently attracted to the shores with other Sandpipers, however, though it usually keeps by itself. It resembles the Spotted Sandpiper more than it does its closer relatives, the Yellow-legs, but it is a trifle larger and darker, has a spotted back, and a white eye-ring,



THE YELLOW-LEGS WILL ALWAYS BOW YOU A WELCOME TO THE SHORE

and shows conspicuous white on its outer tail feathers, like a Meadowlark, when it takes flight.

The Greater and Lesser Yellow-legs resemble each other like the Hairy and Downy Woodpeckers, almost feather for feather, both being gray above spotted with white, and white below with light streaks on the sides of the breast and with conspicuous white tails and rumps. It is often easier to identify a bird by its call than by its size when there is nothing to compare it with, the call of the Lesser Yellow-legs consisting of but two or three clear flute-like whistles while that of the Greater Yellow-legs is usually of four or five similar but louder notes. A bird that is overlooked by many experienced bird students because it so closely resembles the Lesser Yellow-legs is the Stilt Sandpiper. It is really a trifle smaller and has a more pronounced white line over the eye. Adults have darker legs



A "SAND PEEP"

His heavy straight bill and gray coloration pronounce him a Semipalmated Sandpiper

and slightly barred flanks but these differences are not visible on the immature birds. The call-note of the Stilt Sandpiper is not so full and clear as the Yellow-legs, resembling more that of the Solitary Sandpiper.

The most abundant and the smallest of the Sandpipers that trot along the beeches are of two species, the Least and the Semipalmated. They are appreciably smaller than the Spotted Sandpiper and never indulge in teetering. The Least Sandpiper has a brown back and a somewhat slighter bill that one soon learns to recognize. They often occur together in flocks, when the difference is noticeable, but just as often the Least feed farther back from the water's edge on the drift or among the sparse vegetation. The difference in the notes of the two species is about as great as the difference in their bills, that of the Semipalmated being heavier or hoarser. The two birds collectively are known as 'Sand-peeps' and are familiar sights along the beaches from July until October, sometimes assembling in flocks of several hundred birds.

Slightly larger than the Semipalmated Sandpiper, and very much whiter, is the Sanderling, conspicuous because of its nearly pure white head and large white patches in its wings. It prefers the sandy beaches where it often associates with the Semipalmated and becomes very tame.

About the size of the Sanderling, but marked more like a Semipalmated, is the White-rumped Sandpiper which differs, however, in having a few in-

distinct streaks on its breast and a conspicuous white bar above its tail in flight. It, likewise, sometimes assembles in large flocks by itself but is more often discovered mixed in with other species. The Baird's Sandpiper is less common in eastern North America and would ordinarily pass for a White-rumped in the fall. The middle of the rump is not white, however, and the breast is more thickly streaked so as to appear almost like a band. The Red-



A SANDERLING ON THE SAND

backed Sandpiper is likewise very similar in its fall plumage but can always be distinguished by its slightly decurved bill. Somewhat larger than any of these birds, and much browner on the back and with its throat and breast heavily streaked with brown, is the Pectoral Sandpiper or 'Grass Snipe' or 'Krieker' as it is variously known. Its back pattern and its method of flight are somewhat similar to the Wilson's Snipe, but the latter bird has a very much longer bill. The Dowitcher resembles the Wilson's Snipe more than does the Pectoral Sandpiper because of its very long bill and habit of probing in the soft mud. The Snipe usually seeks the protection of the vegetation fringing the mud-flat, however, while the Dowitcher ventures right into the open. The Dowitcher shows a black-and-white barred rump and tail when it flies, while the Snipe shows brown and rufous.

Of the larger shore-birds, it is a rare treat nowadays to run upon a flock of Curlews with their decurved bills or Godwits with their upturned bills. The Willet, with its conspicuous black-and-white wing patterns that is entirely concealed when the bird is at rest, has become rare except in a few favored places, and the Knots that formerly assembled in flocks of hundreds are in

most places still very rare, though with all the other species they have shown a marked increase since they were removed from the game list by the passage of the Weeks-McLean Migratory Bird Bill.

But it is not only the true shore-birds that one will find along the shores during August, for these mud-flats make favorite feeding-places for the wading birds as well. The stately Great Blue Herons stalk through the shallow



A (WESTERN) WILLET ON THE SHORE OF CAYUGA LAKE

His black and white wing markings, so conspicuous in flight, are entirely concealed when at rest.

water, while the Little Green Herons crouch low as a school of minnows approach. The secretive Bittern occasionally ventures out upon the open flat and at dusk the Night Herons can be heard making for the spot from their roost in the woods close by. When all has been quiet for some time, the Rails, or even a Gallinule, may venture out from the adjacent marsh. Of course, the Grackles and Redwings assemble there to take their toll from the stranded minnows and crustaceans, and, curiously enough, Savanna Sparrows, leaving their upland fields, now become one of the dominant birds of the shore. A little later in the season there will be Pipits, and Rusty Blackbirds, and the first of the Snow Buntings, and the sharp eye may detect a Nelson's Sparrow darting through the bulrushes like a mouse.

Yes, the seashore or the lakeshore or the mud-flat is a great place to get acquainted with, and there is no better time for an introduction than right now during August when other bird-life is so scarce.—A. A. A.

SUGGESTIONS TO TEACHERS

There is, perhaps, no more interesting group of birds for study than those that frequent the shores during August and September. Owing to the recession of the waters, a new and abundant food-supply, consisting of numerous crustaceans, aquatic insects, small mollusks, and minnows is suddenly made available and the shore-birds often stop to feed in large numbers. Many of the birds become very tame and are easily observed, even by large classes of children, and it is very interesting to determine how the different species secure their food and with what structures nature has provided them to aid them in their search.

The long legs of the Herons and shore-birds, for wading, and their long toes, for distributing their weight, are obvious adaptations. It is interesting to compare the toes of the Plovers with those of the Sandpipers, and these, in turn, with those of the Herons. The Plovers, with their shorter toes, ordinarily feed on the firmer ground, and the Herons, with their very long toes can venture into the softest ooze with impunity. The Sandpipers are intermediate but are assisted by a slight webbing between the bases of the toes. This is carried to the extreme in the Phalaropes which have conspicuous lobes on the sides of the toes which enable them to swim like miniature Ducks.

Where tracks are found in the hard sand or dried mud, they can be preserved for all time by making plaster of paris casts of them, using the tracks as molds and pouring the plaster, of the proper consistency, into or over them. A very small equipment, a little experience, and a little patience will enable one to make a most interesting collection of bird- and animal-tracks for the school-room. Children delight in it and soon surpass their teachers in their skill in manipulating the plaster.

The length of the necks of the various birds, as compared with the length of their legs, is another interesting study, and, also their method of carrying them in flight and when feeding. Watch the Great Blue Heron stalk slowly through the shallow water in search of its food, while the Green Heron crouches in a favorable place and waits the approach of a school of small minnows within striking distance. Watch the Kingfisher hover over some chosen spot until the opportune moment tells him to plunge when, with half-closed wings, he darts head-first into the water, spearing the fish with his sharp bill. The Fish Hawk, on the other hand, drops, feet first, and catches the fish in his talons.

The various Sandpipers have different methods of feeding which always prove interesting, most of them picking up things in the shallow water but some of them immersing their entire heads and probing in the soft mud of the bottom, while the Spotted Sandpiper delights in chasing flies all over the beach.

In studying shore-birds, it is best to watch the entire shore for a while and determine where the birds are congregating when undisturbed. Then choose a

good place nearby, sit down and await their return if they have been frightened away by your approach. One may not see quite as many birds this way as by following them all along the shore, but those that he does see he can watch to much better advantage. Often they can be rounded up by one or two of the party circling to the far side of them and driving them very slowly back. Unless they have been shot at, they are loth to leave a good feeding-spot and never fly far.

Unfortunately, the Greater and Lesser Yellow-legs, the Golden and Black-bellied Plovers, and the Wilson's Snipe are still considered game-birds, and after August 15, in the northern states, they are likely to be disturbed by gunners and become much more wary, but even during the height of the hunting season new birds are continually coming from the north and are usually quite confiding until they learn the perfidy of man.

Just because one does not live near the seashore or any large lake, he must not think that he cannot study shore-birds, for nearly every small pond presents a new shore-line during August and is attractive to these most interesting birds.—A. A. A.

A NEW BIRD-PLAY

So many requests have come in to this Department for references as to good bird plays that can be given by bird clubs or Audubon Societies in the schools that it is with pleasure that we call attention to one published in the May issue of the *Nature-Study Review* entitled "Winter Birds," by Elsa Guerdrum Allen.

It is a bird masque in three acts, intended to portray winter feeding, and it does so admirably, in addition to being most entertaining. It is enlivened by catchy songs and bits of humor that are sure to make it a success wherever presented.

A note from the editor of the *Review* states that it is to be published separately by The Comstock Publishing Company, of Ithaca, N. Y., so that it can be obtained by any not having access to the *Review*.—A. A. A.

FOR YOUNG OBSERVERS

CHERRY

A young bird was found by a boy in Bar Harbor, Maine, and brought to my cousin, who handed him over to me to bring up, as he was afraid the bird would die of starvation, being already very weak.

I recognized it immediately as a Cedar Waxwing and knew that it feeds almost entirely on wild cherries.

The first he ate had to be chopped up, and were eaten with great delight. From then on there was no difficulty in feeding him, for it was only necessary to offer him a cherry in one's fingers.

My mother and I took turns feeding 'Cherry,' as we had named him, the next day from 5 A.M. until 7 P.M. He would cry for food on an average of every fifteen minutes, and during this period he ate 150 berries. By night he was much stronger and the following day was able to flutter about the room and to his cup for food.

Each time we took him out we noticed an improvement in his flying, and soon he was able to fly to a tree, but would always return to perch on your shoulder or head. Cherry enjoyed especially his daily morning bath and watching us play croquet.

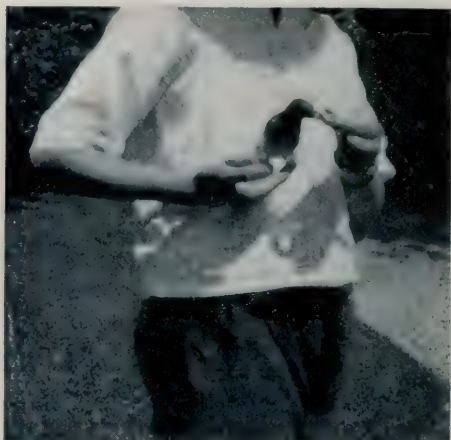
Cherry was so tame that he sometimes became a nuisance during lunch, which was frequently served on the piazza. My grandmother objected strongly to his hopping on the plates, but of course he could not understand why he was welcomed at one time and not at another.

We weighed him with a letter-scale—the amount was one ounce.

One day, the most exciting day of his life, he was, as usual, flying about my mother's room at about 7 A.M. (having slept, with his head tucked under his wing, in a little cedar tree placed in the bathroom) and was playing with a rubber band and pecking at other objects until breakfast-time when I took him downstairs and put him on the piazza railing.

At the end of the meal I went out and there was no sign of Cherry. We

called and called but there was no response. I was very much worried on account of having seen a Hawk that morning and was afraid it might catch him. I left cups of cherries, one in the room, one on the bird-stand on the lawn, and a third on the piazza, hoping he would return. Several hours later, on our way to go swimming, my mother noticed a young Red-eyed Vireo and, much to our surprise, Cherry was with him.



CHERRY ATE 150 BERRIES IN A DAY



CHERRY ENJOYED . . . WATCHING US PLAY CROQUET

After much persuasion he condescended to eat a few cherries, but seemed very wild and flew away with the bird again.

We were sure that he had gone for good with his friend, but when we were quietly sitting at lunch, suddenly Cherry landed on the table and proceeded



CHERRY WEIGHED JUST AN OUNCE

to eat some jelly from my plate. I put him on the railing where he settled down for a nap.

In a few minutes he awoke and began calling. Like a flash he was off and flying away with some other Waxwings. This time we were positive that he had gone forever.

I was sitting on the piazza about an hour later when I heard Cherry calling and presently he was on my shoulder. I carried him upstairs where he cuddled down on the window-sill in my mother's room and went to sleep.

I hope Cherry will soon be strong enough to join his friends and fly south with them, to return to us next summer and raise a family of his own.—
ROSALIE H. SLACK (age, 12 years), *New York City*.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by T. GILBERT PEARSON, President

Address all correspondence, and send all remittances, for dues and contributions, to the National Association of Audubon Societies, 1974 Broadway, New York City. Telephone, Columbus 7327

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Any person, club, school or company in sympathy with the objects of this Association may become a member of it, and all are welcome.

Classes of Membership in the National Association of Audubon Societies for the Protection of Wild Birds and Animals:

\$5 annually pays for a Sustaining Membership
\$100 paid at one time constitutes a Life Membership
\$1,000 constitutes a person a Patron
\$5,000 constitutes a person a Founder
\$25,000 constitutes a person a Benefactor

FORM OF BEQUEST:—I do hereby give and bequeath to the National Association of Audubon Societies for the Protection of Wild Birds and Animals (Incorporated), of the City of New York.

FLAMINGO PROTECTION IN THE BAHAMAS

The following letter from Sir Harry Cordeaux, Governor of the Bahamas, concerning the establishment of a reservation on the northern end of Andros Island to protect a colony of Flamingoes recently discovered there, will be of interest to our readers, as will also an extract from the report of E. W. Forsyth, warden in charge of the reservation on the southern end of the Island:

Government House, Bahamas,
May 28, 1923

Dear Mr. Pearson:

I inclose a copy of my message to the local Legislature concerning Mr. Forsyth's report. Although the appropriation bill has not yet been passed, I think I may say that the necessary funds will be voted.

Allow me to thank you for the very generous donation which your Association has made to provide the small boats required by the wardens this season. You will no doubt agree with me that Mr. Forsyth can be trusted to make the best possible use of this generous gift.

I hope your proposed expedition to Andros next spring will materialize. It should be most interesting and I only wish I could find the time to accompany you. Anyhow it will have the result of bringing you to Nassau again and give me an opportunity of renewing acquaintance with you.

With kindest regards, believe me,

Yours very sincerely,

(Signed) H. E. S. CORDEAUX

Mangrove Cay,
Feb. 22, 1923

Hon. Col. Secretary,
Nassau, N. P.

Sir: I have the honor to forward to you my final report on the protection of Flamingoes for the year 1922.

Some aspects of this work may have escaped notice, and I find that many things I had hoped to embody in the report have been of necessity left out for want of space.

It is not generally known that, with the exception of our wonderful sea with its marvelous coloring, and matchless sea-gardens, the Flamingo is the only great sight that this colony can boast. When seen feeding in fairly large numbers it is sufficiently beautiful to be worth many a weary mile of travel, but when congregated in massed battalions of living flame at the breeding-places, the spectacle becomes stupendous, unimaginable, or, as my warden put it, "beautiful as a host of angels."

All this was rapidly passing away. I had seen it at the height of its glory, and knew that a splendid heritage of beauty was being forever lost—that the irreplaceable was, through ignorance, vanishing like the beauty of the dewdrop before the very eyes of an unheeding generation.

If we viewed the matter from a purely commercial standpoint, who shall fix the value in money of such an asset, at a time when this colony is making great efforts to attract visitors from all parts of the world, and travel is yearly becoming easier and more fashionable.

The effect of the air-plane on travel may easily in the near future make seeing the Flamingoes as simple and expeditious as a trip to the sea-gardens or the Hog Island bathing-beaches, and were they kept before the public as they deserve, increasing numbers of people would hire yachts and motor boats yearly for the trip through the inland sea of Andros, and up the mysterious Wide Opening where almost any fine day a large flock may be seen standing like a red-coated regiment far out in the shallow waters of the bay. Here they feed, till floated off their feet by extra high tides, they resort to the nearby salt lakes and lagoons.

As a heritage of beauty unmatched anywhere the wide world over, every citizen of the Bahamas should be interested in their projection and perpetuation on all the islands

they now inhabit, and in this connection I may say that they were found on Rum Cay in my grandfather's time, and he well remembered seeing the last of their nests in Carmichael Salt Pond, and my father remembers when there was a colony at South End, Long Island, which has now become extinct. Also they were found in older days on many other islands where they are now extinct, such as Exuma, Grand Bahama, Watlings, etc. The colonies on this island Inagua, and Abaco, will undoubtedly also disappear unless protected from man, and at least on Andros these many years they have walked on the edge of eternity with 'Ichabod' writ large above their portals.

I have the honor to be, Sir

Your obedient servant,

(Signed) E. W. FORSYTH, Warden.

ENROLLMENT OF JUNIOR AUDUBON MEMBERS

The work of the National Association of Audubon Societies in stimulating and developing an interest in bird-life among the school children throughout the land is so far-reaching in its effect on the future welfare of the rising generation that it is hard to visualize what the results will be. With the ever-increasing complexities of modern civilization and the man-made machinery of the work-a-day world confronting our youth today, it is well to put in operation a power that will lead their fresh minds into avenues of quiet repose wherein they may come in contact with the great natural forces of life as expressed in the bird-life about them. Such a movement supplies a child with a limitless source of wholesome pleasure that will enrich the years ahead and bring satisfaction to many hours which otherwise might be filled with discontent and loneliness, and the enormous opportunity for good existing among the millions of children throughout the land might well stimulate the minds of those who are working for a better day.

It is very gratifying to be able to report so large an increase in Junior membership as the following summary presents. This brings the enrollment of clubs during the past year to 6,383, with 250,185 members and the total enrollment to date to 78,635 Clubs with 2,143,500 members.

Annual Summary of Junior Audubon Clubs and Members Enrolled Under the Children's Educational Fund

Summary Ending June 1, 1923

STATES	CLUBS	MEMBERS
Alabama	21	750
Arizona	5	208
Arkansas	19	742
California	144	5,104
Colorado	51	1,832
Connecticut	272	9,876
Delaware	16	530
District of Columbia	7	263
Florida	54	3,610
Georgia	72	2,532
Idaho	18	685
Illinois	223	9,092
Indiana	189	7,842
Iowa	110	4,032
Kansas	56	2,005
Kentucky	41	1,518
Louisiana	38	1,584
Maine	41	1,469
Maryland	68	2,599
Massachusetts	408	17,355
Michigan	119	5,436
Minnesota	212	7,858
Mississippi	5	230
Missouri	139	5,032
Montana	25	808
Nebraska	69	2,280
Nevada	9	271
New Hampshire	46	4,613
New Jersey	309	12,789
New Mexico	7	257
New York	940	38,883
North Carolina	25	890
North Dakota	29	937
Ohio	739	25,148

ANNUAL SUMMARY, continued

STATES	CLUBS	MEMBERS	STATES	CLUBS	MEMBERS
Oklahoma	30	839	Vermont	30	1,013
Oregon	45	2,559	Virginia	73	2,629
Pennsylvania	902	37,030	Washington	65	2,564
Rhode Island	8	333	West Virginia	54	2,017
South Carolina	51	1,648	Wisconsin	177	6,354
South Dakota	29	1,149	Wyoming	9	361
Tennessee	26	931	Canada	296	9,251
Texas	32	1,331			
Utah	30	1,026			
			Totals	6,383	250,185

PUBLIC SHOOTING-GROUND—GAME REFUGE BILL

During the last session of Congress the Public Shooting Ground—Game Refuge Bill passed the Senate by a vote of more than two to one, but later failed to pass the House by a vote of 154 to 135.

This important conservation measure will be presented again at the next meeting of Congress, which convenes in December, and it should be supported by all who have at heart the vital conservation movements of the country.

Since the Migratory Bird Treaty Act was established, our wild fowl have increased to an immeasurable degree, and it has become more and more evident that if they are to enjoy the privileges accorded to them under that act, suitable refuges must be provided where they can rest and feed during their journeys north and south.

The present bill proposes to establish throughout the states, areas where this may be accomplished, and at the same time provide the sportsman of limited means with

places where he may obtain wild-fowl shooting in accordance with the laws of the Migratory Act.

To provide funds for this purpose, a federal tax of \$1 is to be collected from each person who wishes to shoot wild fowl, and in that way only the person who actually indulges in the sport is taxed, and it will not add to the burden of the general taxpayer.

The bill also provides that no tract may be purchased without the consent of the legislature of the state in which it lies, and therefore will not in any way infringe on the right of each state to control the affairs within its boundary.

This piece of legislation goes far to make permanent the benefits derived from the Migratory Bird Treaty Act. Unless it is passed in the immediate future our migratory birds will be in almost as bad a predicament as they were before any conservation movements were undertaken in their behalf.

Write your Congressman today.

CONNECTICUT AUDUBON SOCIETY'S TWENTY-FIFTH ANNIVERSARY

The twenty-fifth anniversary of the founding of the Connecticut Audubon Society was celebrated at its annual meeting at Fairfield, Conn., on Saturday, June 2, 1923.

About a hundred and fifty members and their friends assembled in the Community Theatre and listened to a stirring address by Dr. Chapman on the accomplishments of the last quarter of a century in bird-protection, and on the splendid work of the Connecticut Society in particular. He traced the

history of the great conservation movements of the country and their effect on bird life and how they react on the welfare of the general public. On a day in 1886 he made a bird census on 14th Street, New York, which at that time was in the heart of the shopping district, and counted the hats on the heads of women that were decorated with feathers. Ninety per cent of those counted were trimmed with native bird feathers, representing forty species of birds. Now one may

canvass the entire city and not find a single hat trimmed with the plumage of native wild birds.

Norman McClintock showed some remarkable moving pictures of birds, and Wilbur F. Smith, game warden for Connecticut, spoke on the devastating results of forest fires and showed some pictures of a Woodcock's nest that had been saved by the

prompt and thoughtful assistance of a bird-lover during a recent conflagration.

An outdoor luncheon was served at Birdcraft Sanctuary, and later the members strolled through the Sanctuary and were delighted with the results achieved by Mrs. Wright and Mr. Novak in attracting so large a variety of birds to that delectable resting-place.

THE OREGON AUDUBON SOCIETY

The fifth annual art exhibit of the Oregon Audubon Society was held recently in the Central Library building at Portland. This has become an important educational exhibit, held in conjunction with the University of Oregon, and attracts a large number of visitors each season. Teachers from various schools take their classes to the library to see the pictures and specimens as an aid in teaching children to know the birds, wild flowers, and trees. Mr. and Mrs. A. R. Sweetser, of the University of Oregon, exhibited a remarkable series of 250 water-color drawings of the wild flowers of Oregon. A hundred original drawings in color by R. Bruce Horsfall illustrated the wild birds and animals of the state. A very fine photographic exhibit of native birds, animals, and flowers, both enlarged and colored, was shown by H. T. Bohlman, Earl Marshall, Mr. and Mrs. A. L. Campbell, and W. L. Finley. A fine collection of outdoor photographs, as well as mountaineering equipment, were installed by the Mazamas. One of the most unique

exhibits was a remarkable display of living wild flowers which had been gathered from all parts of the state by Miss Arlie Seaman, Mr. and Mrs. N. P. Gale, Prof. M. W. Gorman, and others.

In addition to the exhibit, the Oregon Audubon Society has for several years furnished a course of lectures, open to the public, every Saturday evening, except during the summer months. These lectures are held in the large lecture-hall of the library and are illustrated with lantern-slides and motion pictures. They are given by experts in this part of the country on the various phases of nature-study and outdoor life. W. A. Eliot and W. S. Raker have had charge of the lecture-course.

Through the generosity of one of its friends, the Audubon Society has recently issued a small leaflet dealing with the destruction of birds by house cats and asking that people who own cats keep them in check so as to prevent the destruction of our song-birds.

TOPEKA (KANSAS) AUDUBON SOCIETY

The Audubon Society of Topeka, Kans., recently held its first large annual exhibit and also conducted a very large and successful bird-house contest. The *Topeka State Journal* for April 5 says:

"The auditorium was a busy scene this morning, with no less than 2,000 bird-houses filling the parquet section. Today, the final touches to the display of bird-houses—garden flowers, shrubs, and plants—are being applied. Bird-houses of every description have been placed on three tables which

occupy the center of the building. Homes for Wrens predominate but there are Martin-houses, Bluebird-dens, and dwellings for Flickers and other kinds of birds. Not only are the bird-houses being displayed but drinking-fountains, food-troughs, bath-basins and other things which attract birds to the city. The architecture of the bird-houses is such as is usually done by pupils much older than those of the fifth, sixth, and seventh grades.

"All houses will be for sale after the

awarding of the prizes and the display, which lasts until Saturday night. Many of them cannot be bought for less than \$15 to \$20, and one is marked for sale at \$25. It was constructed by Robert Willey, of the sixth grade of Holy Name School, and is an excellent piece of workmanship. The city auditorium will be open to the public Friday morning, and will remain open all that day and all day Saturday; it also will be open Friday and Saturday nights. The judging is being done

this afternoon and will be completed Friday morning. More than \$100 worth of prizes are being given.

"The displaying of the birdhouses, arranging of the stage, and planning of the entire show is under the supervision of Glenwood E. Jones, of the Topeka Audubon Society, and he is being assisted by a large number of the pupils in the schools, and by W. W. Scott, supervisor of manual training work in the Topeka schools."

DR. WILLIAM W. ARNOLD

By the death, at Colorado Springs, Colo., March 30, 1923, of Dr. William W. Arnold, the birds lost a friend who was ardently interested in their welfare and protection, and who had given much of his time to the work during the last years of a long life. He was in his eightieth year when he died, having been born in Connersville, Ind., August 28, 1843. He had resided in Colorado Springs since 1886.

Dr. Arnold gave many talks about birds, especially in the spring, to the children of the schools of Colorado Springs and vicinity, often illustrating them with mounted specimens, and even with living birds, usually patients from his Bird Hospital. He thus enlisted the sympathy of the youngsters in the cause he had so much at heart.

The hospital was established because many children brought him injured birds, with the request that he would make them well. It gradually grew until there was a good-sized

aviary, besides smaller cages, and the work of caring for the patients took much of his time, though he still continued his regular practice. His wife aided him in this work. Later, birds were brought to him by all sorts of people, and occasionally after summer hailstorms, he had very many. Those which were cured were liberated. Some, of course, died, and a few were so crippled that it would have been an unkindness to have freed them, and therefore they were kept at the hospital.

The hospital was well known in his home town, and its reputation was carried all over the country by visitors who saw it. He constantly wrote short letters to the local papers urging the protection and feeding of birds, as well as many longer articles about them.

Dr. Arnold was an Associate Member of the American Ornithologists Union, a Member of the Cooper Ornithological Club, and of the Colorado Audubon Society.

THE WOOD THRUSH

As we grow older the din of active life grows more confusing. Worldly delights pall and the things which held our attention with such keen rapture lose their charm. Harsh notes persist in crowding out the harmonious tones of natural sounds.

We are often haunted by the grim spectre of despair and the thought that the world is, after all, a sad and disjointed affair persists in torturing our distracted minds. The gleam of inspiration grows faint and day by day

the unrelenting grind of toil shuts out the light that guides our destiny.

Then we awake at dawn on a morning in early June and a Wood Thrush is singing beneath the window in a dew-wet growth of shrubbery. On the instant our senses are alert to the clear, sweet call of this immortal bird—all our doubts and fears are washed away and we know that our lives have not been in vain and that our destiny is one with the Eternal Giver of Light.

PATRON

Chandler, W. F.

NEW LIFE MEMBERS

Enrolled from May 1, 1923 to July 1, 1923

Benjamin, Henry B.
Brunner, Miss Camilla M.
Buechner, Miss Lucy R.
Dewey, Mrs. George
Donnan, S. B.
Erickson, A. W.
Frick, Mrs. Childs
Gifford, Mrs. James M.
Hartley, Mrs. Clara
Henry, Mrs. Charles W.
Hubbard, John
Hurd, Benjamin, Jr.
Kirk, E. B.

Knight, Mrs. H. F.
MacColl, Mrs. James R.
Marshall, W. A.
Morcam, G. Frea
Nickerson, William E.
Paxton, Mrs. Jesse W.
Scott, Mrs. H. B.
Shaw, Henry S., Jr.
Smith, James A.
Van Norden, Mrs. Warner M.
Waid, D. Everett
Whitson, Abraham U. & Isabel E.
Wick, Miss Laura

NEW SUSTAINING MEMBERS

Enrolled from May 1, 1923 to July 1, 1923

Abbott, Mrs. Harriet A.
Aborn, Mrs. Vinnie R.
Adams, Miss Clara Celeste
Adams, Elbridge L.
Adams, Mrs. Samuel
Allen, Mrs. William E.
Allyn, Mrs. John
Anders, Fred G.
Armstrong, Mrs. C. Dudley
Arnold, Warren H.
Audubon Society of Kansas
Ayers, Miss Paulina A.
Ays, Orla L.
Baeyertz, J. T. F.
Bains, George B., Jr.
Barclay, Mrs. John
Barron, C. W.
Bates, Mrs. Joseph
Beale, Mrs. F. H.
Becker, Mrs. Nettie W.
Beede, Miss Abbie S.
Bennett, Mrs. Arthur G.
Benney, G. A.
Bernuth, O. M.
Bingle, Edward J.
Bissell, Malcolm H.
Blackman, Mrs. Edward Lawton
Blankenhorn, David
Bliss, Miss Lucy B.
Bond, Mrs. Fanny H.
Bougher, Howard M.
Brainerd, Dr. John B.
Bremer, Mrs. S. Parker
Brickenstein, Miss Mary R.
Brooker, August E.
Brookman, Miss Anna M.
Broomhead, Mrs. Fred C.
Brown, Mrs. J. C.
Bruce, Mrs. Leslie C.

Brush, Edward W.
Buhler, Joseph S.
Burchell, Henry
Burke, Mrs. Johanna
Burnap, Mrs. Elsie B.
Burnham, Lee S.
Burns, P.
Byron, Lewis T., Jr.
Cabot, Mrs. Henry B.
Campagna, Leonardo P
Campbell, Mrs. W. O.
Carroll, Mrs. E. M.
Carson, Charles O.
Carth, Mrs. Jean E.
Chapman, Harry E.
Chisolm, B. Ogden
Clark, Miss Maud S.
Clapham, Miss Elizabeth M.
Clark, Miss Mary Reinette
Clark, Mrs. S. T.
Coffin, Edmund, 2d.
Collins, Clarkson A., 3d.
Compton, Lawrence
Congdon, Herbert Wheaton
Cook, John G.
Cooke, George J.
Coryell, N. M.
Cover, C. Lee
Crimmins, Miss Mary C.
Crockett, Harry L.
Cummings, Miss Evelyn
Curtis, Charles B.
Dale, Mrs. J. R.
Dalzell, Miss Virginia C.
Davis, Edwin Russell
Davis, Harold S.
Davis, John A.
Davis, Norris K.
Dawes, Miss Constance M.

NEW SUSTAINING MEMBERS, continued

- Dawson, Miss Sallie
 Deane, Dr. Harry T.
 Deane, Miss Mavrett A.
 Decker, T. W.
 Degener, William
 deKleist, Miss Mausi
 Demmler, Miss Anna L.
 Demoulin, Mrs. E. A.
 Denby, Edwin H.
 Dengler, John
 Dickey, Master Charles D., Jr.
 Dodge, Mrs. J. L.
 Donald, Mrs. J. M.
 Dougan, Miss Rose G.
 Douglas, W. M.
 Draper, Dr. George
 Drew, Mrs. Catherine Lumaghi
 Drost, C. A.
 Drowne, Wilfred S.
 DuBois, Mrs. Helen A.
 Dudley, Mrs. Sarah H.
 Duncan, Frederick S.
 Durfee, Mrs. Charles H.
 Duval, St. John
 Earle, F. S.
 Ebeling, B.
 Eibisch, Miss Frieda L.
 Eisenhower, W. R.
 Ekblaw, Sidney E.
 Eliot, Willard A.
 Elsaessar, Miss Susanne
 Ely, Mrs. N. L.
 Emerson, Lowell Pierce
 Emerson, Miss Margaret G.
 Emmerich, Miss Dorothy
 Emory, Miss Laura H.
 Engel, Louis G.
 Epple, Miss Alice M.
 Ewen, Miss Eliza M.
 Farley, W. T.
 Farnaham, Charles W.
 Fenner, Raymond E., Jr.
 Ferguson, Harry L.
 Ferguson, John Clark
 Fisher, George Harrison
 Fisher, Mrs. George Harrison
 Fisher, Mrs. J. J.
 Fisher, Mrs. John J.
 Fitzgerald, H. R.
 Fitzpatrick, William J.
 Fitzpatrick, Mrs. William J.
 FitzSimons, P.
 Flinn, Ralph E.
 Flint, Austin
 Fobes, W. H.
 Foerster, Mrs. A. M.
 Freedley, Vinton
 French, Malcom B.
 Fuller, Miss Marion H.
 Fuller, Melville B.
 Gaillard, Miss Anne P.
 Gambrill, Mrs. Richard, 2d.
 Gardiner, Prof. H. Norman
 Gardner, Mrs. Edward E.
 Gary, I. C.
 Gerster, Mrs. A. G.
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 Gibson, Mrs. Alice D.
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 Gladding, Nelson A.
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 Goldenberg, M.
 Gooderham, Dean N.
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 Graves, Mrs. Emma F.
 Greene, Arthur Duncan
 Griffin, Nelson F.
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 Haas, Mrs. Walter A.
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 Hall, Percy L.
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 Harris, Basil
 Harris, John U.
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1. GREEN HERON.

2. LEAST BITTERN

3. CORY'S LEAST BITTERN.

4. BITTERN.

Bird-Lore

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Birds-of-Paradise at Little Tobago Island

By HENRY D. BAKER

American Consul at Port-of-Spain, Trinidad

AN island of some 350 acres, Little Tobago, located about two miles east of the northeastern corner of Tobago (Tobago is situated about 30 miles to the northeast of the British island of Trinidad), has become quite famous as the home of Birds-of-Paradise. Sir William Ingram, who thought the island would make a suitable sanctuary for the birds, had about 50 cocks and hens brought from New Guinea some twelve years ago. It is understood that at first the birds diminished in numbers, but the more hardy ones reared an increasing offspring. Little Tobago was recently purchased by Mr. A. Luban of Newark, New Jersey, who had conceived the plan of removing the birds to specially selected ground near Miami, Florida, where it was hoped that they might rapidly increase.

Mr. W. C. Luban, son of the new owner of Little Tobago, has now spent some months on this island carefully observing the habits of the Birds-of-Paradise residing there, and making comprehensive efforts to arrange for their transfer to a six-acre enclosure already prepared for their reception at Port Lauderdale, near Miami, Florida.

Although Mr. Luban has met with poor luck in his efforts to capture the birds for transfer to Florida, he has been able to make most interesting observations of their habits and to learn very much about them that was never known before. I have had the pleasure of several calls from Mr. Luban, and also have received letters from him giving results of his studies amongst these birds, and have had his permission to make public the result of his investigations.

Dancing in the Trees.

Among the unique habits of the Bird-of-Paradise are the gay dances of their social life, especially during their breeding-season, and the fact also that these birds appear to be under definite leadership by one of their number, whose constant watchfulness probably accounts in large measure for their success in perpetuating their existence, and their avoiding traps for their capture.

A flock will first settle onto a tree, and then all the full-plumaged males will

pick out a particular limb, and start their characteristic dance, which is mainly an exaggerated toddling movement and jumping up and down, with their golden plumes extended in the shape of a fan over their heads. Generally speaking, they are crouched with heads bent downwards and wings flapping in unison with the spreading of their tails. The hens at first only look on in mute admiration. The position of the sexes is the reverse of that in human society, for among these birds it is the sterner sex which is endowed with the greater beauty, the hens being plain, simple and unassuming in their appearance.



A ROADWAY ON LITTLE TOBAGO
Photographed by W. C. Luban

After dancing for a few moments, the male birds, whether in play or in fight, suddenly start a kind of merry-go-round canter after each other, making complete circles, but occasionally deviating to near-by trees. Then they quietly settle down for a few moments in a restful interlude. The dancing is then continued, lasting from about 15 minutes to half an hour, but finally, before the dance closes, the hens join in also, and circle around with the cocks in a kind of grand right and left cotillion figure, which much resembles the 'Paul Jones' of our own ballrooms, when young and old, wallflowers and favorites, may all join. Sometimes, however, a single bird will continue to dance by itself. The effect is most brilliant and beautiful, making a climax of spectacular and bewildering interest.

After the dancing is over, the birds finally settle in pairs, male and female, and then fly away together. Occasionally, however, one large male bird may

be seen flying off with two or three hens, and sometimes, those out of luck may have to go away alone. Whether the birds practise polygamy or monogamy is unknown.

The dancing parties are always held at selected trees and at appointed hours, usually just after sunrise or just before sunset, and mainly in the breeding-season. In a recent letter to me, Mr. Luban wrote:—

“I think I have already mentioned to you that there is not a month in the year that we have not seen, on at least a few occasions, male birds going through their dances. When they have no display plumes, this consists mainly of slowly flapping their outstretched wings and sometimes hopping about the limbs. At these times they appear to have no favorite trees, but indulge wherever they chance to be. From what I have read of the habits of Birds-of-Paradise, I understood dancing to be a phenomenon of the mating-season only; and therefore was much surprised to learn otherwise. A queer action of the males, noticed several times by my men and myself, is their snapping off of tiny twigs of leaves. This is usually from their ‘dancing’ trees.”

Leadership of Birds-of-Paradise.

Mr. Luban has made the discovery that the flock of birds apparently has one leader, who seems to be able to exert control over them. In one instance, Mr. Luban's helpers put a quantity of traps and birdlime in a particular tree, where this big full-plumaged leader was in the habit of coming. It was in a tree where he generally came to drink from one of the water-pots placed for the birds, and one in which the birds gathered to dance in the mornings and late afternoons. Soon after setting the traps very early in the morning before sunrise, this particular bird came in and was caught on the birdlime, but eventually freed himself. Since that time no Bird-of-Paradise has been observed to enter that tree although only one bird, the chief of the flock, knew of the dangers of it. In all cases, once the bird gets away from a trap, it is practically impossible to get it by any of the usual methods. The native Tobagan birds, on the other hand, are decidedly inferior in intelligence, as time and again they can be caught, notwithstanding numbers of their flocks have been previously trapped and taken before their very eyes.

Method of Flight.

Birds-of-Paradise fly with an undulating motion. The longest flight a bird has been seen to make at Little Tobago is about 400 yards; however, such flights are uncommon. The adult male birds when in full plumage, evidently finding themselves burdened by their plumes, do not cover big distances, and keep away from windy places. It has also been noticed that the full-plumaged bird flies in an exaggerated dip-and-dive motion. This has been noted particularly in a part of the island infested with Hawks and may be for the purpose of escaping the attacks of Hawks. When they see a Hawk coming toward them they dive to the ground. In the air, the Bird-of-Paradise is at a disadvantage,

for he is not a strong flyer and cannot cover big distances; moreover, he is very conspicuous, especially when full-plumaged. Several times Mr. Luban has noticed a Hawk circling above Birds-of-Paradise dancing in a tree, the Hawk having been attracted by their cries. The Birds-of-Paradise, however, appear to know the Hawks and to fear them, and when they are in the vicinity, they will stop making their usual calls and if the Hawks continue in the neighborhood the Birds-of-Paradise may keep away from their favorite trees for some days. There is no doubt that the Hawks kill the Birds-of-Paradise, for Mr. Luban found remains of one in a Hawk's nest. So far as known Hawks are the only enemies of the Birds-of-Paradise on Little Tobago. While Hawks have been seen to attack a full-grown wild Pigeon and seriously wound it, yet they have not actually been seen to get near enough to a Bird-of-Paradise to inflict injury. They have, however, been seen to chase the females, although in each instance the bird managed to escape. The hen, of course, can get away more easily than the male bird with its more cumbersome plumage.

Breeding-season between November and March.

Mr. Luban's records indicate the beginning of November to the end of March as the extreme limits of the breeding-season. The ornamental plumage in the adult males develops from May until the breeding time. But evidently it is not retained long in its perfect and most beautiful condition, for it has been noted in at least a few instances that there is gradual loss in length, doubtless by moulting, of the plumage right into the mating months. Generally speaking, the birds breed about the ending of the wet and the beginning of the dry season, and the young birds leave their nests when the dry season is well advanced, and it is necessary to search for water.

Just after the breeding-season they do not go about in flocks. During the breeding season as many as fifteen or sixteen are to be seen in a tree, although the more usual number is eight. After the breeding-season, only single birds or two or three are seen at a time. Mr. Luban once observed a fight between two male Birds-of-Paradise. They were so intent on themselves and the other birds were so interested in watching them that they did not observe the trapper coming up. One bird was hanging to the perch head downwards, the other directly above him; they grasped each other and fell to the ground. It was very steep ground and they rolled to the bottom but after a few minutes, they reappeared and joined the flock, both birds evidently being very exhausted, and keeping on opposite sides of the tree, shy of each other. During this fight, about eight birds were present, the majority being hens. It was the male birds who were fighting. The birds remained right overhead when the man came up. They usually circle over a stranger and perhaps leisurely fly away but show no great fright. The full-plumaged male seems more shy than the female.

Favorite Diet of Birds-of-Paradise.

At the present time, two water-pots are kept about 20 feet above the ground in their favorite trees. They seem very fond of papaws. They eat also what is known locally as the "parrot apple," the only fruit available in the dry season. This is indigenous to the island and is their mainstay for six months of the year. A bird now in captivity at Little Tobago is very greedy for scorpions. Although domestic fowls can eat a scorpion with apparently no ill effects, yet with this Bird-of-Paradise its keeper takes no chances, but cuts off the scorpion's tail before giving it to the bird. The bird was also offered lizards, but did not appear to be particularly fond of them, and eventually refused them alto-



LITTLE TOBAGO ISLAND FROM TOBAGO ISLAND

Photographed by H. D. Baker

gether. It has lately taken a liking to cockroaches, which at first it refused altogether. It refuses rice and all cooked foods. It is given a little raw meat once a week, and liked condensed milk from the very start. Its main diet is a variety of fruit, including papaw, banana, wild plum, oranges, etc. When camp was cleaned recently, there were found a number of large scorpions which were offered to the captive. These it crushed in its bill first and after they were dead, it swallowed them and seemed to enjoy them. The bird in captivity, which is a hen, apparently eats well but makes no noises except a very low cackling cry or grumble, when it goes for its food, and does not seem to wish to have persons around it.

Flight to Tobago.

The channel between Little Tobago and the island of Tobago is about two and a half miles at its narrowest point. Rumors have been circulating for some time past about birds being seen on the main shore. Mr. Luban went over to investigate the matter and saw one young Bird-of-Paradise. It was

very commonly in company with a flock of Yellow-tails (*Cassicus*). For the two and a half weeks he was there, it made no sound whatever, and on this account it was impossible to trace its movements. This bird was seen at Igenza, which is the nearest point on the island of Tobago opposite to the smaller island. It seems likely that others may have crossed and have been shot out by hunters. It is to be hoped that they may be specially protected, for if they can gain a footing on the larger island, they will probably tend to increase faster than on Little Tobago, because water and food are more plentiful all the year round. Ordinarily, it would not be possible for the Bird-of-Paradise to fly across this channel, but in view of the fact that high winds are of frequent occurrence, and invariably blow toward the larger island, it is possible that they may have been blown across.

No Nests or Eggs Found.

No nests or eggs have ever been found, but that may be due to a large part of the island being inaccessible on account of steepness. There has been found, however, one nest which was probably that of a Bird-of-Paradise. This particular nest was blown down from a bay leaf tree, about the center of the island. It was new, recently built of coarse twigs, lined with dry leaves, during the breeding-season of the birds. There was no other bird on the island which could build a similar nest except the wild Pigeon, but it was not their breeding-season. The breeding-season is assumed to be the period of full plumage when the birds go in flocks. The birds apparently get less shy as the breeding-season approaches. The area of the island is about 350 acres. There is scarcely any level ground in the island at all, and it is about $1\frac{1}{2}$ miles in the longest part. The Birds-of-Paradise keep mostly to the west side of the island. Mr. Luban's camp is in the highest part—470 feet high.

On the eastern, or windward side which the birds frequent very little, the vegetation is mostly cactus and other low bush. On the western side sheltered much more from the wind, there are tall trees descending almost to the water's edge. This is the side which faces Tobago. Birds dance on both high and low trees. When they gather in the mornings and late afternoons in flocks, during the breeding-season, they select what is known as the wild banana trees. These trees have considerable foliage, but a comparatively clear space inside giving room to dance about. This tree bears a particularly tiny red seed, but the Bird-of-Paradise has never been seen to eat it.

Roosting Habits.

Their feeding-grounds are quite a distance from where they go to rest at night. They wait until just before sundown and make a quick flight to their roosting-places in thick woods, possible on bamboos. They make no noise when they fly to their roosting-places, which makes it almost impossible to follow them and locate exactly where they sleep. In the morning their first calls are made

considerably before sunrise. The Birds-of-Paradise are often seen coming out just as there is sufficient light to see pathways. At midday they seek the shady parts of the forest and are most commonly seen early in the morning or late in the afternoon, this being the time when they are most lively and call loudest. They may be in the same trees during the noontime but are quiet and motionless. Sometimes it is possible to hear their cries about half a mile away. They have a variety of calls. The full-plumaged birds at times make a sound very much like the ordinary Crow and something like *caw, caw, caw*. The full-plumaged male has a stronger voice than the female. Its characteristic cry is something like *wawk, wawk, wawk*. This seems to be a cry sent broadcast for any bird to answer, and leads to the collection of the flock. In answer the birds will give two to four cries, never the same number, all the same sound and some will merely come forward without cries. Several times, by imitating these cries, Mr. Luban has had birds come toward him, but this could never be done a second time unless by an even more clever imitator. When they go for their food, they make a certain peculiar cry when other birds are in the way, the same as the bird in the cage already described. They utter different notes when they are dancing.

The Yellow-tail bird appears to be afraid of the Bird-of-Paradise rather than the other way round. The Yellow-tail never disputes possession of a tree. An instance has been seen of a fight between a Yellow-tail and a Bird-of-Paradise, the former getting the worst of it. Any fighting is done with beak and claw.

Baffling Efforts at Capture.

Mr. Luban, writing in January, stated:

"At the present time, a flock is gathering and has been for the past two months, on a 'wild banana' tree. In this instance it is quite a tall one, some 50 feet, and is the highest in the vicinity, projecting above near-by trees, so that it is plainly visible from the caretaker's house and at times Paradise Birds can be seen in it by the aid of a good glass. A full-plumaged male virtually lives in this tree, seldom leaving it for over a quarter of an hour at a time, except at dusk when he travels to his roosting-place a good distance away. He is on the spot about half an hour before sunrise as regular as a clock. At various times during the day he utters his cries, which attract the other Paradise Birds in the vicinity, and they go through their antics for some fifteen minutes or more. They then gradually disappear except for this big male bird who seems to act as master of the ceremonies. Due to his insistence on sticking around from day until night, and being, in effect, such a vigilant watchman, my trappers are excessively hampered. It is impossible for us to do anything to the tree in the daytime without this bird seeing us, and night work in this particular instance is impracticable. A few days ago at dusk, my man climbed the tree and no sooner was he at the top than the 'watchman' (who we thought

had gone to roost for the night) flew into the tree for an instant, and then to a nearby treetop the better to observe the man's actions. Having already learned of the sagacity of the Birds-of-Paradise by unsuccessful experience in trapping and knowing that to be seen on a tree renders all traps there useless, my man descended. I was extremely interested to ascertain if this incident would cause any alteration in the bird's preference for his favorite tree. And so the next morning, very early, I watched from my place of concealment with particular sharpness. I heard his customary cry, and soon he was on the scene but not in his favorite tree. His calling gathered the usual small flock of six to ten birds nearby, but I noted that none entered the tree in question—until about sunrise, somewhat later than was habitual, this watchman (who is easy of identification, having by far the longest ornamental plumage) went in first. It was quite plainly a cautious entrance of investigation, for he did not enter with his wonted dash and dance. The other birds followed soon after him, and again the morning ceremonies were on. I think this incident tends to illustrate the remarkable coöperation and intelligence the Paradise Birds here display."

The Bird-Feeding Towers of Ahmedabad

By GRANT FOREMAN, Muskogee, Okla.

THE city of Ahmedabad, India, has 250,000 population and it is dirty and dusty. The street-sprinkler walks along, wetting the dust about him from a goat-skin of water he carries on his back. Camels slouch through the thronged market places. The streets are full of strange sights, but nothing held greater interest for me than the frequent bird-feeding towers along the busy thoroughfares. These conspicuous features of Ahmedabad are built and maintained and the feed is furnished by the Jains, the most influential sect of non-conformists to the Brahmanical system of Hinduism in India; they believe that all animals are endowed with souls or are the temporal homes of the spirits of departed Hindus, and, in common with all Hindus, do not believe in taking animal life.

The Jains are the wealthier class of Indians, and they have been able to indulge their fancy in erecting substantial and ornate feeding-places for all their birds that come freely into the busiest streets knowing they will not be molested. I saw ten or fifteen of these feeding-places, which were usually erected at prominent street intersections. Some of them were built of marble and must have cost several thousand dollars each. The feeding-platform, at an elevation of twelve to twenty feet, is reached by a little stairway. In some instances it is supported by a single column and sometimes the structure is built solidly from the ground up six to ten feet in diameter. Apparently many kinds of what we would call wild birds mingle freely with English Sparrows and Pigeons in the feeding-places. The feed is spread out on the floor and on shelves under a well-constructed and substantial roof which protects the birds

from the fierce sun and the rain. I frequently saw man-made nests swinging under the roof and birds sitting on them unmindful of the racket of the traffic around them.

In the Jain temples, boxes are provided into which worshippers and visitors to the temples drop coins which go into a fund for the purchase of bird-feed and maintenance of the feeding-places. It gives the American visitor a distinct surprise to see, in what we are accustomed to regard as benighted India, this elaborate provision for the protection of the birds and most effective bid for their friendship and confidence.



A BIRD-FEEDING TOWER AT AHMEDABAD, INDIA

Photographed by Grant Foreman



BRONZED GRACKLE

Photographed by Dr. Frank N. Wilson, Ann Arbor Mich.

The Marsh Hawk in Southern Michigan

By WILLIAM G. FARGO, Jackson, Mich.

With Photographs by the Author

BECAUSE of bounties being paid for killing Hawks and the general warfare by farmers against the whole Hawk family, these birds are much less common in southern Michigan than formerly. In the southern third of the Lower Peninsula of Michigan, the remaining woodlands are small in extent, but there are numerous marshes, which are infrequently mowed or not mowed until late in July. Hence the common Hawk of this region is the Marsh Hawk.

Occasionally the Red-tailed, Red-shouldered, or Broad-winged Hawks are seen, but not often. Except during the migration periods, the smaller Hawks, including the Sparrow-Hawk, Cooper's and Sharp-shinned are now seldom seen in the south central part of this Peninsula.

The adult male Marsh Hawk presents a general appearance of blue-gray color, although whitish underneath. The female is a brown bird, being dark umber on the back and lighter below, with dusky streaks on the breast and sides. Both males and females have the upper tail-coverts white (in the male, bluish white), making a distinctive patch on the lower back, also both have the tail cross-barred with lighter color, both above and below. The immature birds of both sexes resemble the adult female, but are darker all over, presenting a very handsome appearance with their glossy, dark umber backs glistening in the sun. In this locality they attain full size and begin to fly early in July.

The Marsh Hawk has a perceptible face-ruff somewhat like an Owl. This



FEMALE MARSH HAWK ADDING GRASSES TO HER NEST AFTER LAYING

can be seen in one of the accompanying photographs. The adult male Marsh Hawk is nineteen to twenty inches in length and the female twenty-two to twenty-four inches long. These Hawks feed largely upon mice and moles and are commonly seen skimming low over the marshes in quest of such prey. Dr. A. K. Fisher considers this one of the most beneficial of our Hawks and says "It is probably the most active foe of meadow mice and ground squirrels, destroying greater numbers of these pests than any other species." Out of 124 stomachs reported on by Dr. Fisher, 7 contained poultry or game birds; 34, other birds; 57, mice; 22, other mammals; 7, reptiles; 2, frogs; and 14 insects.

This Hawk, so far as the writer knows, always nests upon the ground where it builds a rather flat nest of weed-stalks and grasses. The nest, when



MARSH HAWKS ABOUT THREE WEEKS OLD

the eggs are laid, may be not over fifteen inches or eighteen inches across and perhaps 2 inches above the sod. It seems to be a habit of this bird, however, to add to the nest from time to time, so that when the young are half-grown there is frequently a platform of grass and weeds 3 feet in diameter or more. One of the accompanying photographs shows the female Hawk just alighted beside the nest with its bill full of grass. At the time of taking this photograph, May 19, 1923, the incubation period was two-thirds past, as the young hatched during the last week in May.

The nest shown in these photographs was one of two in the same marsh, about a half mile apart, each containing six nearly white eggs. The young on the two nests hatched about the same time. In both nests, one of the eggs hatched several days after the others and in each nest one of the young remained much smaller and did not fly until the other young had been active in the air for some days.

Twice while in the vicinity of one of these nests, the male was observed to bring food, consisting of a small bird, to the vicinity of the nest. The female

then arose from the nest and took the bird in the air, a hundred feet or more above the nest. All prey is taken and carried in the talons; once she missed the catch in taking it from the male and it dropped about fifty feet before she caught it.

The first time that the male was observed to bring food was during the incubation period. Then the female flew away some eight hundred feet, ate the bird and returned in a leisurely manner to the nest.

The second time that food was seen to be brought by the male was after the young had hatched; then the female returned quickly to the nest and the bird brought was found to be apparently an immature Red-winged Blackbird.

Bobolinks, Song Sparrows, Henslow's Sparrows and Short-billed Marsh Wrens were apparently nesting within about two hundred feet of this particular Hawk's nest and these several varieties of birds exhibited little if any concern when the Hawks were flying about. Probably this was because of the ease of eluding a Hawk in the tall grass.

The Marsh Hawk seldom utters a sound as it flies and soars about over the meadows scanning the ground for its prey. The alarm note of these two female Hawks, uttered when disturbed in the vicinity of the nest, or when the immature young were about, was a not unpleasant whistling, *qui-qui-qui*, not in any way resembling the shrill squealing of the Red-tailed Hawk, nor the subdued throaty *kee-aah* of the Red-shouldered Hawk, soaring in circles high aloft.



A KINGFISHER AND HIS CATCH

Photographed by F. N. Wilson, Ann Arbor, Mich.

Feeding-Habits of the Northern Shrike

By RALPH E. DANFORTH, Instructor in Zoölogy, Rutgers College

ON January 3, 1918, shortly after sunset, with the thermometer a little below zero (Fahr.), and the ground covered with snow, I saw a Northern Shrike in a small tree in Highland Park, N. J., and approached quite close before he moved to a near-by tree, whence, on being still pressed by me, he flew some seventy yards to a patch of ornamental shrubbery. In this trip the bird caught a large meadow mouse and had wedged it in a low-bending fork of a shoot which bent over till it touched the snow. When I came up the fork was around the waist of the mouse, the hips and hind legs preventing it from being drawn through the crotch by the bird, which stood on the same shoot, though at a higher point, pulling backward and upward as he skinned the mouse and tore pieces of flesh to eat. The bits of skin and fur were allowed to drop to the snow. When I approached too close, the bird flew to another patch of shrubs, taking the mouse with him. Here he disemboweled the mouse neatly. To examine what the bird had rejected, I scared it to a third clump of shrubs, then hastened to get two youths from a house nearby to come and see the skilled anatomist eating his prey. It was truly surprising to see the feats the bird could perform with his bill alone and the very evident knowledge he had of the anatomy of the mouse.

When there was nothing left but the hindquarters and tail, there being nothing which could be conveniently wedged into a fork or crotch, the bird thrust the piece upon a carefully selected spur on a shrub, in such manner that the spur passed into the natural opening through skin and pelvic arch, for there was still a bit of skin left about the hindquarters, since the bird had skinned the mouse piecemeal as he ate it. The pelvic arch, hind-legs and tail were left upon the spur, but all meat had been removed and eaten. The remnant was still on the spur the next morning, frozen fast to the shrub. From the foregoing it seems that this Northern Shrike used the nearest convenient fork in which to wedge his victim instead of going to some thorn-bearing plant, and that when forks failed to avail he found a thorn-like spur nearby without going further to where real thorns could be had, at no great distance. Probably if a thorn had been nearer than the spur he would have used it at the last instead of the blunter spur. In selecting a fork he always seemed to prefer one so placed with relation to its surroundings that he could stand as high or higher than the fork and pull upward and backward instead of pulling downward from above.

In the November-December, 1918, BIRD-LORE, Prof. A. A. Allen gives his observations of the feeding of a Northern Shrike which likewise wedged its mouse in a narrow fork, and even when a thorn bush was brought and the mouse spitted upon a thorn, the bird did not seem to appreciate the effort but preferred to use a fork. It is indeed possible that the mouse was not spitted in the height of Shrike art in relation to the surrounding twigs which might serve as

perching-place while tearing the mouse, but my own observations confirm those of Professor Allen in that the Shrike is perfectly satisfied to use forked branches, although my Northern Shrike was equally adept in the use of thorn-like spurs when such became advantageous. Very little seems to have been recorded as yet upon the habits of the Northern Shrike, and I would suggest that other bird observers make it a point to look for these birds in winter with this end in view.

Early in April, 1917, a Northern Shrike which I observed came to southern New Hampshire and remained in the same locality more than three weeks before going farther north. The spot was near a river and flooded meadow. The bird would perch on telegraph wires and poles by the railroad, as well as on trees and shrubs. On the coldest and bleakest days of that cold April I could find him almost as certainly as on the sunny days while he remained with us. His feathers were fluffed out on the cold days, and he would sit thus by the hour without spying anything to catch. On sunny days I watched him catch hundreds of insects, which he would spy down in the grass, often at considerable distances. He did not look nearly so happy as the many Loggerhead Shrikes I had just been watching in southern Florida a few weeks previously.

Of the many species of Shrikes, most belong to the Old World. The Great Grey Shrike of Europe resembles our Shrikes somewhat in color and pattern, and has been used as a sentinel to give warning of the approach of a Falcon so that the fowler may draw his net in time to catch the Falcon. This Shrike, and also the Red-backed Shrike of Europe impale insects and larger prey upon thorns. The Red-backed Shrike is called by the French '*L'ecorceur*,' the flayer, from its habit of skinning its victims before eating them. My Northern Shrike was also a flayer. The common 'Fiskal' Shrike of South Africa impales insects and the like on thorns.



Observations on the Mockingbird at Dallas, Texas

By ALICE B. HARRINGTON, Boston, Mass.

ON June 9, 1923, the first broods of the Mockingbird nesting on the estate of R. A. Gilliam, Dallas, Texas, had flown, and in a new nest in the rose vine over the arbor there were four lovely blue eggs splashed at the larger end with dark brown.

In a rose vine on the veranda another Mockingbird began to build its nest June 7; on the 10th the outer shell of the nest was completed, and on this day



FOOD AND DRINK FOR THE BIRDS

Photographed by R. A. Gilliam

Mr. Gilliam brought some dried sprays of dusty miller and placed them in bushes and on the lawn. The Mockingbird immediately began to use this dusty miller, and we noticed that now the female helped in building the nest, remaining mostly at the nest arranging pieces of this plant as the male brought it to her. We knew it was the male bird which started the nest, as each time he brought a twig or straw, even with the very first one he laid (as we were eating our lunch on the veranda), he sang a little song as he alighted on the

rose vine. On June 12, the nest seemed to be finished, and there were a few sprays of the dusty miller fastened upright at the side of the nest nearest the porch, as if for decoration.

Mockingbirds usually walk or run while on the ground, and spend a good deal of time running over the lawns searching for insect food. Sometimes they will stop and hop into the air to catch a small flying insect of some kind. They also have a habit of flying to a point below the place where they propose to alight and then straight up to the perch. The songs and calls of the Mockingbird are so many that it would be almost impossible to enumerate them. It



MOCKINGBIRDS AT THE BATH

Photographed by R. A. Gilliam

imitates exactly the song of the Cardinal, so that you could not declare which bird it was unless you saw the bird singing. It sings distinctly the songs or calls of the Carolina Wren, Quail, Blue Jay, Flicker, Red-headed Woodpecker and is very fond of imitating Guinea-hens, and also the Whip-poor-will.

Mr. Gilliam has noted the following in regard to the food of Mockingbirds: They eat berries as a steady diet the year round, berries from the prickly ash and mulberries, also cherries, tomatoes and peaches. Robins in migration

disturb them very much because they devour the coral berries, of which the Mockingbirds are very fond. They also eat an enormous amount of insect-food, moths, grasshoppers, etc. They eat suet somewhat when they are feeding their young, and also drink milk from the pans set out for the dogs. In the garden they follow anyone digging and the moment a grub or worm is uncovered, seize it. All kinds of nuts are eaten by them, and they are especially fond of the paper-shell pecan.

FLIGHT SONG AND DANCE OF THE MOCKINGBIRD

On the estate of Mr. Gilliam, about twenty pairs of Mockingbirds nest every year. The flight song and nuptial dance of the Mockingbird have been observed by Mr. Gilliam many times. In the early spring, he says, the Mockingbird takes his perch on a tall post, or some such elevation in the open (the top of a chimney is a favorite perch) and flies straight up into the air for ten or fifteen feet and then down again to the chosen place, singing all the time; he waits for a minute or two and then repeats the flight and song, and so on for a short time, when he flies to a different perch and goes through the same performance.

In the early spring Mockingbirds can be seen dancing in pairs on the lawn. Later, when they are preparing for a second or a third brood, there is no flight song but the dancing is continued, although less frequently.

We saw the dance of the Mockingbirds on two different days in June (when visiting Mr. and Mrs. Gilliam) this year. It was a curious and most interesting performance. The first time they danced exactly opposite each other. They faced each other about a foot apart, hopped up and down, moving gradually to one side, then back again, and so on. A second pair began their dance in the same position, but first one hopped twice to one side, then the other followed the first, which hopped again sideways and the other followed, always facing each other, then they moved back in the same manner to where they started and repeated the performance. After each dance was finished the birds flew off a short distance in opposite directions.



Notes from Field and Study

The Joys of a Bird-Table

We think we have a wonderful record for a city place,—sixty different kinds of birds in one year—1920. We have a lot only 100 by 300 feet, but we do admit that Cincinnati is more than fortunate in being near rivers and in having so many ravines and trees which provide natural protection and nesting-sites for birds.

We put a wide shelf on an upper window-sill off the sitting-room with trees near it and on this shelf we keep a supply of goodies from early in the autumn until very late in the spring. We always have a big piece of suet, for if we have little pieces the squirrels come up the brick wall and carry them away. Every morning we put out three big handfuls of sunflower seeds and if we don't get them out just when the Cardinals think they should be there, they come to the window and tap on the glass. We have come to know the individual birds very well indeed; for instance; one Cardinal had something the matter with his tail so that it was always spread out—we called him Mr. S. T. Cardinal (spreading-tail); another one had a very crooked tail, so we named him Mr. C. T. Cardinal. One of the lady Cardinals had no tail at all, but she didn't seem to mind in the least and went in the very best of Cardinal society. One of our most interesting friends was a Titmouse that had lost a foot just at the ankle and his feathers were all ruffled up as though he had been in a fight. It was surprising how well he managed with one foot; we called him the 'veteran' and he hobbled about just like an old soldier and we noticed he was always ready for a fight too.

We love best the Chickadees, their caps are so like black velvet, their calls are so very friendly, and they really are the most unselfish, for they make room for the others and never push and shove as some of the Woodpeckers do. It took the Downy Woodpeckers a long time to come to the shelf, they seemed to be so fearful, but it is such fun to see them come peeking over the edge, for they never

fly right down onto the board as all the others do, but come up from underneath. I think they alight on the wall and creep up gently. Last winter we had a Carolina Wren all winter and were so glad we had been able to keep him for his song in the spring was just heavenly. As far as we know the Brown Creeper has never visited the shelf though he creeps up and down our trees most faithfully. Does anyone know of a special kind of tid-bit that might tempt him? We get peanuts and grated cocoanut, put them in melted suet, then pour it into a tin can lid and, when it hardens, put it out for them as a special treat.

We do so want to know if the Blue-Jay swallows the sunflower seeds whole or just fills his mouth full and then goes off somewhere to eat them at his leisure. Can anyone tell us? We have from ten to twelve birds all through the winter even in the very worst weather, and when it is freezing hard we put hot water out every now and then so they have several chances to get a drink during the day. If you really want to know the birds intimately, do try a shelf on a window-sill in a room where you are most often and you will have a wonderful time watching them at close range.—ALICE CROSS, *Cincinnati, Ohio*.

From a Bird-Lover's Note-Book

We often read of the ways in which birds will adapt themselves to circumstances, and build and rear their young in unusual, and often unnatural surroundings. One of the most interesting incidents of this nature was that of two young Rose-breasted Grosbeaks, whose parents chose a small elm, just outside our lawn as a suitable place for their rather carelessly constructed nest.

On the afternoon of June 7, 1922, after a sudden and violent thunder shower, I heard a male Grosbeak calling furiously at several Robins on the lawn, and on going out to discover the cause of the disturbance, saw two downy nestlings, one clinging to the tree

trunk about a foot above the ground, the other on the wet grass.

To the accompaniment of hard language from the old birds, I gathered up the tiny, fuzzy fledglings and, placing them on a low-hanging branch, ran for my camera. The tiny birds were ideal posers, sitting with the utmost docility in any position we were minded to place them, for they were still too young to show fear of their human admirers. But the pictures were, much to our disappointment, a failure.

As the wind and rain had completely demolished the frail nest, and as another violent shower had commenced, I had to rescue them from another drenching. Hastily manufacturing a soft round nest from an old blue dusting cloth, I placed the babies in the odd cradle and here they cuddled down contentedly. As the skies once more cleared, I hung the nest by means of two stout safety-pins to the grape-vine on the front veranda, and here the male and female soon came and fed them, apparently paying no attention whatever to the curious little blue gingham nest that held them.

After nightfall, as more storms were threatening, and the nest could be too easily located by cats, I transferred it, birds and all, to an empty strawberry box and carried it into the house for safety. We heard the low musical call of the female soon after four o'clock the next morning, but as we didn't get the box fastened in the vines until five o'clock, an hour elapsed before she came back again. At six we heard her call from the trees, and the young ones quickly answered with their plaintive 'here, here.' The mother bird approached cautiously, and after a careful scrutiny of the box, leaned down and thrust a worm into a wide-open beak. The male too appeared, but after one look, he voiced loud disapproval of the strawberry box, and left, leaving the entire care of the young to the female. Ofttimes, as though to atone for his negligence, he would hover nearby in the trees and chirp encouragingly to her on her trips to and fro. She soon lost all fear of the unusual nest in which her babies rested so snugly, and often perched upon it as she fed them.

The tiny male showed salmon-pink feathers

on the shoulder of each wing, while the little female showed spots of sulphur-yellow on her wings. By the second day the young birds began to show fear of us as we would peep at them, hiding their eyes by drawing in their heads and pulling their wings slightly forward. By the third day they began to clamber bravely out upon the edge of the box, preparatory to going higher in the vines. After three or four attempts the little female went first, climbing up a foot or two, followed a few hours later by her brother, who after many false starts, and sudden cuddling down in the nest, finally succeeded in gaining a secure footing in the vines where he could survey the new land of delight. There was no tragic ending to this little incident, for we later heard the young birds in company with their parents high in the trees that bordered the street.

Another interesting experience was with a female Ruby-throated Hummingbird that my mother found perched in the morning-glory vines, apparently half-starved, for it could only thrust out its tongue and feebly squeak. Filling a teaspoon half full of sugar-sweetened water, I tilted it against the slender beak, and had the satisfaction of seeing the little mite eagerly drink it. I fed it about every ten or fifteen minutes, finally carrying it to a more shaded location out of reach of the hot sun. After an hour it had recovered so far that it was able to stretch its tiny feet and wings and fly away.

Every summer we have a large colony of Purple Martins, averaging from thirty to thirty-five adult birds, besides the numerous young; they occupy three large houses down on the edge of our vegetable garden, where they have plenty of room and freedom from crowded buildings.

One day in July, 1922, noticing a commotion among the birds over something on the ground, I hurried down expecting to find a cat with a young bird, but saw, to my amazement, a small snake, attempting to swallow a fully-feathered young Martin. Having nothing with which to kill the snake, and thinking only of rescuing the struggling bird whose head was fast in the mouth of the snake, I seized its outspread wings and tail and forcibly pulled it from the jaws of its

captor. Strange to say, the young bird did not seem much the worse for the harrowing experience. The snake, much to my regret, succeeded in escaping.

I have also seen small snakes carrying with ease half-grown frogs by the head and throat and making their way with sinuous ease through the tall grass to a place in which to devour their victim. Needless to say I always interfered in behalf of the frog.

One more item of interest, that of a flock of American Crossbills that appeared in our garden on November 8, 1922. There were eight or ten birds in the flock, all in brilliant new plumage, three or four of them males, the rest females. They fed exclusively on sunflower seeds, and were extremely tame while feeding, one pair allowing us to approach within six or seven feet of them. They made a pretty picture on that sombre November day.—ETHEL ALLIS NOTT, *Reedsburg, Wisconsin*.

Birds in Busy Chicago

How much it would add to our joy in the glad springtime if we all knew the birds we have with us—right here in busy Chicago—especially during migration.

In our neighbor's small yard which boasts of one syringa and a bridal wreath bush, also a few feet of hedge, and even in the dirt of the alley on the other side of our premises, and within a radius of a block, I have seen 62 different species of birds.

Last spring my bird trips were somewhat limited by the necessity of using crutches, so eyes and ears were keener and constantly on the alert for the birds about us.

A Wood Thrush sang two evenings in a near-by yard! What was my surprise while lying in the hammock on the porch to see a Warbler in the lower branches of a tree close to the porch railing—it proved to be that rare sprite, the Cerulean Warbler! On the 14th of September a Yellow Rail appeared in the middle of the street in front of our house and walked to the curb where it hid in a border of petunias!

The following is a list of the birds seen:

Evening Grosbeak, Wild Geese, Woodpeckers: Downy, Hairy, Red-headed; Flicker,

Sapsucker, Crow, Blue Jay, Junco, Bluebird, Robin; Sparrows: Song, Swamp, White-throated, White-crowned, Fox, Chipping; Grackle, Brown Creeper, Flycatcher: Phoebe, Pewee, Least, Yellow-bellied, Alder, Acadian; Kinglets: Golden-crowned, Ruby-crowned; Purple Martin, Catbird, Oriole, House Wren, Oven-bird; Thrushes: Hermit, Grey-cheeked, Olive-backed, Veery or Wilson's, Wood, Northern Water, Louisiana; American Bittern, Hummingbird, Night Hawk, Goldfinch, Scarlet Tanager, Black-billed Cuckoo; Vireos: Red-eyed, Philadelphia, Warbling; Nuthatches: White-breasted, Red-breasted; Warblers: Black and White, Yellow, Myrtle, Cape May, Canadian, Tennessee, Mourning, Cerulean, Redstart; Brown-Thrasher, Yellow Rail.—GLADYS FOWLER, *Chicago, Ill.*

Visitors in Our Garden

One of our chief thoughts in planning the garden at Brick House was to encourage the birds of this vicinity to come to us and make their homes in our shrubs and trees. We have placed many bird-houses in the trees and it has been interesting to note the many different kinds of birds that have settled with us in five years.

In the early spring of this year many Warblers and other migrants made us a visit on their way north.

We also saw a glorious Rose-breasted Grosbeak and a Purple Finch. They, too, went further north to make room for the busy, fussy, gurgily Jennie Wrens who came house-hunting and finally settled in all the little homes in the trees. But our most tried and trusted friend is the lovely Cardinal who comes each year, and calls and whistles and follows us when we are in the garden, flying from tree to tree. We have placed a bird's feeding-station within sight of the porch, and our proudest moment last year was the day father Cardinal brought his whole family to the stand for a picnic; mother and the four children all feeding while father perched on the overhanging dogwood and poured out his soul for fear we would not see his gorgeous red family.

The friendly Catbird has built her nest

very close to the porch, and when some one of us comes out on the porch, perches on the back of one of the chairs and sings her lovely song to tell us how much she likes us. One day while enjoying this delightful concert, I noticed a new bird around the flower-bed flying back and forth, and in and out of the porch, evidently trying to find a nesting-place. This went on for several days and at last I quietly followed her, and there in a lilac bush close to the sitting-room window, I saw the most beautiful little nest suspended like a basket from a branch, and snuggled in the nest a little olive-colored mother bird. I rushed to get the bird-book and found that a Red-eyed Vireo had settled with us. Needless to say, we protect her in every way and feel we are indeed honored. I must not fail to mention the Brown Thrashers who climb to the topmost top of the trees to sing, and who turn the Birds'-Bath into a veritable Beach Club Pool. Also the Cuckoo, the Song Sparrow (a most delightful and friendly companion), a pair of Crested Flycatchers who nest every year in the woods on the river bank, Bluebirds, Robins of course, Chipping Sparrows, the Goldfinches who ruin all my zinnias, and a brilliant Ruby-throated Hummingbird.

I assure you that all these little 'Mother West Wind' friends are very valuable to us. It is worth while encouraging them. We find that putting many kinds of bird-food on the feeding-stands, providing a bird-bath, eliminating English Sparrows and Starlings, and forbidding cats on the place, has all resulted in making our place a kind of Sanctuary, and the result in these last five years has been quite wonderful.—MRS. A. V. STOUT, *Red Bank, N. J.*

Unusual Nesting-Sites

At my country place at Stamford, Connecticut, we have disposed of cats and have no trouble in caring for rats and mice in ways that are effective.

Birds understand our love for them and nest close to the house. Two of them this year have chosen unusual nesting-sites.

Near the roof of the front porch I tacked up a shingle this spring as an invitation to the

Phoebe. It was taken in charge by a pair of Wrens which raised their brood there although a number of available bird-houses were near.

In a pine tree near the house, a Catbird built its nest at an elevation of about 20 feet above the ground, and liked the situation so well that it raised a second brood there, although I cannot determine if they used the original nest or built another near, because the branches are too thick to allow climbing for investigation. The choice of the pine tree by the Catbirds is peculiar because there is an abundance of shrubbery close at hand in which Catbirds have formerly built their nests.

On my property, about a half mile from the house, a Wood Duck built a nest and hatched eleven eggs on the top of a steep river bank under a tangled mass of grapevines, although a nesting-box for Wood Ducks was in a tree not far away. This is the first instance in which I have known a Wood Duck to make a nest on the ground, although I once found a Wood Duck nesting in a hole between the roots of a tree on a water-washed stream bank near Nassau, New York.—ROBERT T. MORRIS, *New York City.*

Loon Nests

Mr. R. J. Sim's paper on "The Common Loon," published in BIRD-LORE for May-June prompts me to send a description of three Loons' nests also found on Cranberry Lake, N. Y.

These nests are on different floating islands in the lake. The islands are a mass of *Chamaedaphne calyculata*, *Alnus incana*, *Sphagnum*, *Kalmia angustifolia* and *Sarracenia purpurea*, all interwoven so that the island rises and falls with the level of the lake.

The nests which I found had the usual two eggs, about three and a half by two and a quarter inches in size, elongated with one end more pointed than the other, a dark olive-brown, thinly spotted with blackish spots. One nest is a low, flat collection of sticks resting upon the shrubbery, just above the water-level. There was a slight depression in the center of the nest. It was interesting to note that some of the sticks, used in

building the nest, were aspen and had been cut by beavers, whose work can be seen on the western shore.—CLAIR A. BROWN, *Port Allegany, Pa.*

A Scoter Patient

On November 27, 1922, I was on the beach at Long Beach, California, and noticed a female Surf Scoter unable to fly and sitting in the edge of the water. I watched my chance, and when a big wave receded leaving it out on the sand, I ran and picked it up and found it to be soaking wet and shivering with cold. For several days the weather had been

attempted to capture it, it proved too lively for me and escaped into the water and I saw no more of it until the following morning, when its dead body lay at the foot of the sea-wall.

The next morning, the twenty-ninth, was bright and sunny so I took the Scoter from its cage and gave it back to the wild. The enclosed picture was taken just after it was released and before it realized its freedom. The Pacific Ocean was beating upon the beach about a hundred yards in the rear of the photographer, and as soon as the Duck discovered it was no longer a captive, there was a wild rush of pattering feet and it went speeding out over the water.—FRANK F. GANDER, *Long Beach, Calif.*

Fours—Right!

One of the most interesting birds of this section of the country is the Killdeer. Its clear-cut call is music to the ears of any lover of birds—unless, perchance it is the cause of one's awakening in the middle of a summer night. At such a time the feeling is one hard to describe. One listens to the call as the bird flies over until it is at last too far distant or the bird has found a place to rest.

On foot, few birds have as quick, graceful movements as the Killdeer. Quick as a flash to dart forward and as quick to come to a sudden stop, it is the trained soldier of the field-birds. Its movements may be clearly discerned in newly plowed, or in grain fields.

In the summer of 1919, I was assisting a farmer of western Crawford County (Pa.) in the preparation of some ground which was to be planted to wheat that year. One day shortly after the plowing and harrowing had been finished, I was driving across the field when I noticed a group of young Killdeer with an old one. At first I thought nothing of it, but with a second look, I noticed that they were acting very strangely. I stopped the team and watched the birds. There were seven or eight (I believe there were seven but have not the record of that) young ones about half-grown with one old bird. At first they were apparently skipping around aimlessly. Soon the old one gave a call. Immediately, there was started a drill which



SURF SCOTER

windy and rainy and I suppose the bird had been so buffeted about that it was worn out and therefore easily chilled.

I carried the Duck into the house and placed it by the stove, where it could dry and get warm. At first, it was so very weak that the only sign it made of life was to open its mouth when I picked it up, but, as its feathers dried and the warmth returned to its body, it became very antagonistic and would peck viciously at a hand held out to it.

The following day continued rainy so I kept the Duck in confinement, and, during the morning noticed another one in the same dilapidated condition on the beach. This was a male of the same species but, when I

would put many a crack squad to shame. The young ones separated quickly into two groups and formed in two lines facing each other at a distance of about two feet with intervals, between individuals, of five or six inches. The old bird took a position ten or twelve inches from the ends of the lines and facing them. A second call from the old Killdeer and forward the two lines moved with precision and uniformity; the individuals passed alternately; and each line with a right-about-face of each individual came into line where the other line had been previously. Again the lines were facing each other. This was repeated three or four times before I left. This exhibition took place within fifteen yards of where I sat.

Knowing the quickness and accuracy of movement of the Killdeer, I have wondered many a time if this were not a part of the regular training of the young to fit them for just such activity and precision.—W. EDWIN COON, *Erie, Pa.*

A Grouse Refuge

One fall, just after the hunting season opened and hunters were after the few scattered bunches of Grouse and Prairie Chicken in the neighborhood, a much-bewildered young Grouse flew into our yard seeking protection from some foe which nature hadn't warned her against. She did not seem to realize that it was man who was causing such disaster in her neighborhood when she came to us for protection, for she acted as though she was perfectly safe in our presence. She was somewhat timid at first but not so wild that she would fly to avoid a person, and it was not long before she would come for grain thrown for her. She was unusually fond of apples and soon ate from one's hand.

She was never confined in any way yet she stayed with us winter and summer as long as she lived.

She mingled with the domestic chickens, more or less, during the day but would never go to roost with them at night. She selected an open shed for her roosting-place during the winter and, as the days grew warmer in the spring, she would sleep under some bush nearby.

She made a nest in the orchard and laid

a setting of eggs which proved not to be fertile. After sitting on them for about a month, she gave up the task and went about as usual.

She would often take long journeys into the hills but would never fail to come back in the evening to sleep some place nearby. One day, about a year after she arrived, while on one of these journeys, she was attacked by some predatory animal or bird of prey and badly wounded. She came in that evening very lame and unable to fly. It seems strange that she could escape after being so badly wounded. She stayed very close after this and in about two weeks she died.—RAE T. HADZOR, *Norris, Montana.*

A Trapped Woodpecker

Driving along a country road today, I came upon a young Red-headed Woodpecker in a serious predicament. It was clinging to a steel fence-post and I noticed that it was fluttering wildly and struggling to get away, although it was not until I came close that I saw where the trouble lay. The post was of the common hollow type, with a very narrow crack running from top to bottom where the edges were drawn together to make the circular post. At the top of the post this crack was somewhat larger, and in some way one toe of the Woodpecker's foot had slipped down the crack. The farther down the toe slipped, the tighter it became; no trap could have held it more securely. By grasping the bird firmly and pulling its foot upward, I was able to extricate the trapped toe. The bird squealed and grabbed my finger with its sharp beak, but in a moment it was flying away, doubtless none the worse except for its bleeding foot. These steel posts are quite extensively used in Iowa and I am wondering if such accidents are of frequent occurrence. My Woodpecker was a this year's bird; though in immature plumage it was as large as an adult. Quite a number of Red-headed Woodpeckers fall victims of passing motors. One occasionally sees their dead bodies lying along the highways where they have been struck by some fast-moving car. I believe that other native birds are seldom killed in this way.—FRED J. PIERCE, *Winthrop, Iowa.*

Yellow-headed Hummers

I was much interested last summer to see a female Hummingbird on our Bee Balm, with a tiny light yellow patch on her head. This summer we had the Ruby-throated with the same little yellow patch but the female had none this year. I had never seen anything like it on a Hummingbird before and wondered if it was unusual. Have any of the BIRD-LORE readers seen anything of the kind?—IDA M. WILCOX, *Berlin, Connecticut*.

[The yellow color referred to is caused by the presence of pollen from flowers the Hummer has visited.—Ed.]

Murder of Sparrow by Grackles

The following account of an attack on a House Sparrow by Grackles was sent to me by Dr. Harold A. Innis; and it raises questions which you or your readers may be able to answer. Do such attacks take place frequently? Are they prompted by 'race-hatred' between the species or by some action of an individual Sparrow? And are they usually carried to a fatal termination? Personally, I have not observed fighting between Grackles and House Sparrows; but I have heard of another killing, similar to this, taking place in this city.

"...Last Monday at about 9:30 in the park behind the public library we actually saw three Blackbirds overtake and kill a Sparrow. It was all done so quickly and with such vehemence that we scarcely knew what had happened....One more brazen than the rest continued to stab the little bird long after it had been dead....Sincerely, Harold A. Innis, University of Toronto, Toronto, Canada, July 10, 1923."—R. OWEN MERRIMAN, *Hamilton, Can.*

Making Friends with a Tanager

This year a pair of Scarlet Tanagers is much in evidence about our place—the flash of color in the trees is pleasing indeed. Early this summer the brilliant male was first seen eating winged ants swarming from an old stump. He allowed me to approach him quite closely while his mate warned him of his danger and scolded me roundly. He

seemed too busy to listen and ate his fill before leaving.

Saturday, July 7, while using the garden hose to freshen some drooping plants, the male Tanager flew within two feet of me, and seemed quite friendly.

Sunday morning on the terrace in front of my house, I saw the male Tanager on a branch of a dogwood, about ten feet from the house. He was there a few moments when he flew to a small oak five or six feet farther away, so I moved to a stone wall, placing my hand upon it. In doing so, I saw a winged ant approaching, and knowing the Tanager's fondness for them hoped he would see it and come. The thought had scarcely come to my mind when he flew to the dogwood, thence to the wall by my side, and without any hesitation picked up the ant which had crawled on my hand, then hopping on my hand and after looking at me for five or more seconds, flew to a rock three or four feet away where he stayed a minute or so, and, with the ant still in his bill, he flew to his home across the street.—CHARLES D. HAINES, *Pelham, N. Y.*

Catbird Notes

I picked up from the ground last week, a young Catbird sick with a strange malady. Its body was swollen, and its skin so tight that it looked like a toy balloon. The bird appeared to be dying and I pricked the outer skin with a needle, letting the gas out; it revived and called for food. I fed it a crushed blackberry and it appeared quite natural. Then I put it into an old nest, and put the nest in a basket near the tree I found it under. In a few moments the mother bird was feeding it. In an hour the gas had formed again. So I operated a second time and satisfactory results followed. The mother bird became so tame that she stopped scolding me when she saw me coming to the bird, and sat quite near—always coming to the edge of the basket when I left; to see what had been done. After a day, spent anxiously watching the young bird and relieving it by puncturing the skin about every hour, night came on, threatening rain so I brought the basket into the house. At daylight I heard

the mother bird calling for her bird and I took the basket out to her. She flew down immediately and looked at the poor little dying bird, but did not feed it. For several hours the sufferer was barely alive. She did not attempt to feed it but never left it, sometimes she flew up on the fence and seemed to be asking "What can we do?" Do you know what was the trouble with this bird, and what could have been done for it?

This pair of Catbirds had built their nest in our syringa bush, using string and rags that I put out for their use. I located the nest by watching them carry the white rags into the bush. This little invalid bird was their second family this summer. After they were through with the nest, I took it down and used it at our Audubon Society meeting, the subject for August being 'Nest Construction.' I was taking it apart before the class, carefully undoing the birds' work, and telling them that the white rags were an old handkerchief that I had torn up, when I came to a layer of paper, matted and packed tightly together. Imagine my surprise and amusement to find a red label from a can of salmon, with the word Salmon (my name) plastered around the paper partition of that nest! It was printed in gold letters, in an oval of gold on red paper, and looked like it might have been a door plate!—MRS. MARY SALMON, *Tarkio, Missouri*.

A Wood Thrush Story

Our first glimpse of him would have led us to believe him a very pugnacious bird. He perched on the edge of the bird-bath pan and showed a desire to bathe, but above him, on top of the hydrant, was a lordly Blue Jay, whose attitude threatened a quick swoop upon the would-be bather. He was not to be frightened, however; he would hurriedly dip his head into the water and give it a flirt, then raising it, open his beak wide at the Blue Jay, who only cocked his head knowingly and mischievously. Down again into the water, another hurried flirt, and a quick return to the defensive attitude. The little performance was funny to witness, and continued until the Jay flew off and left the valiant brown bird to his bath. Knowing the Blue

Jay's propensity for scaring birds smaller than he, we concluded he was at his regular trick of teasing, and that he merely tired of his pastime and flew away, rather than that he was at all scared by his victim.

Being woefully ignorant of the names of birds, the writer consulted a 'Bird-Book' to determine who this little brown fellow might be. It was easy, from description and illustration to identify him as the Wood Thrush, and we were destined to see much of him in the next few weeks. Day after day, he sat on a fence-post near the screen-porch, singing loudly his few notes of song; what the song lacked in notes, he made up in volume and repetition. It was not until the little birds were hatched that we discovered his mate. The nest was built low down in an apple tree, —a fine, compact little piece of work,—containing four hungry little Thrushes. The mother bird was most trustful, and fed them when we stood very close by; she seemed not to resent our presence in the least. All went well, the little birds grew apace, but sad to relate, we live in a cat-infested neighborhood. One morning, very early, a big white cat was seen in the tree, and at seven, when noting the birds' distressed cries, we went to look, we found the nest on the ground, quite empty, and no trace of the little ones. Naturally, we supposed the cat had enjoyed a bountiful breakfast of four little Thrushes, and mentally heaped anathema upon that cat and all cats, and vainly regretted the trustfulness of the birds in building their nest in such an accessible place.

But that was not the end of the story; the Thrushes wasted no time in mourning their loss, but set to work immediately to build another nest,—this time on a high limb of an immense oak that stood against the house. It was placed in a way that would cause one to believe the birds had learned a lesson from the fate of their little family, for this nest was surely in a safe place, and it was finished in two days, with Mrs. Thrush sitting again.

About this time, I noticed that Mr. Thrush was feeding a small bird, which followed him quite persistently and peeped continuously. The little fellow could fly fairly well, and from that day on was fed and cared for by Father Thrush. We now witnessed the

pretty sight of Mrs. Thrush sitting on her nest, and the little one she had already raised perching beside her on the edge of the nest. Mostly however, he followed the male Thrush about, and chirped for food. They often sat on the fence,—father and child,—Mr. Thrush singing loudly, and the little one sitting close to him. The young bird was not brown like his parents, nor could I discern any flecks on his breast; he was instead rather a drab color, and unless closely observed might have been taken for a Sparrow of some species, for he seemed not much larger than the House Sparrow. Could it have been a young Cowbird?

We watched these birds with interest for a week, and hoped to see another brood, more successful than the first one. But it was not to be. One Sunday morning, no Wood Thrushes were to be seen; we missed the clear, ringing song and the youngster's insistent chirp. The nest appeared to be forsaken. We could not solve the problem, for no cat could reach the nest, and surely no cat could get all three birds since they were all so active. We were puzzled until our good neighbor reported finding a dead Wood Thrush in the back yard—not eaten or trampled—just dead. We concluded then that the little mother had succumbed, possibly because of confining herself too long to the nest, or perhaps she was afflicted with mites from too prolonged sitting. At any rate, immediately upon her demise, her mate and little one disappeared, and we felt we had witnessed one more of the tragedies such as enter into the lives of the birds.

The empty nest hung on the limb until the next spring, with a melancholy piece of white rag suspended from it which waved in the breezes, then other birds tore the nest to

pieces, using the materials for their own homes.—ALTA I. CANNON, *Carthage, Mo.*

Our Robin Family

Early in the spring, a Robin and his mate built a nest in the corner of the fence, by our garden. It seemed strange that they should select this frequented spot, but they showed no fear and commenced to build their nest just a few days before a heavy rainfall which nearly washed away their home.

As soon as the storm was over, the birds began to repair their nest and they soon had things in shape again. Then Mrs. Robin laid three eggs and commenced to sit. At first she was nervous, as the children and all the family passed the corner many times a day, but she soon became accustomed to us.

After the eggs hatched we had more cold weather with a northwest wind and some snow, but the Robins took turns in keeping their little ones warm by covering them with their wings.

Late one evening Father Robin watched me poking around in the garden with a stick. I thought he wanted some worms so I dug a few and took them to the mother bird. She took each one as I handed it to her, and, like a sensible person, fed them to her hungry babies. My children were delighted when I told them about it, and one and all volunteered to dig worms to feed their bird-friends.

So they went on with the care of them, and the young birds grew very rapidly, for they had plenty to eat. Our oldest daughter was particularly attentive to them, and one day the mother Robin perched on her hand while she fed worms to the little ones. This was a wonderful experience which will always be sweet in our memories.—M. G. CRUMB, *Royalston, Mass.*

THE SEASON

Edited by J. T. NICHOLS

XXXIX. June 15 to August 15, 1923

BOSTON REGION.—We have had a cool summer with moderate rainfall. There has been no real drought, consequently the vegetation is fresh and green (often the countryside in August has a parched and wilted appearance) and the summer and early autumn flowers have opened little if any after their normal dates.

At the beginning of this period great numbers of fledgling birds are on the wing, and on all sides their various, characteristic notes may be heard as they proclaim their whereabouts to their parents. The young of some of the common species appear almost simultaneously over a whole township. For example, wherever one goes on a certain day about the middle of June, he hears for the first time the 'cricket note' of the fledgling Chipping Sparrow and a little later in the month, he will hear everywhere in the scrub-growth the food-call of the young Chestnut-sided Warblers.

Then in mid-summer comes the long silent period of moult,

"When all the birds are faint with
the hot sun,
And hide in cooling trees."

But long before the end of summer the moult is over and a time of great activity follows; the birds, in spite of the summer weather, suggest by their behavior the coming of autumn. It is evident that they are moving away from their breeding-grounds; notes are heard in the night from birds flying overhead—more and more notes as the season advances, in the early morning too there is an increased chipping from birds about our door-yards,—fine sibilant 'chirps' such as we did not hear in June, and in the dawn of August mornings the 'wink' note comes from small flocks of Bobolinks flying south. Sometimes in July a new species is noted,—a Water Thrush or Black-throated Blue Warbler, birds which may have bred only a few miles to the north.

In the woods and even in gardens and orchards one may notice at this time the

wandering Black and White Warblers, the nucleus of the autumn Warbler bands, and on lawns and in weedy fields the Chipping Sparrows gather in families and flocks, the first intimation of the great assemblages of Sparrows in October.

Along the sea-coast, at the close of the summer period the migration is in full swing; for a month thousands of shore-birds—Least and Semipalmated Sandpipers and Ring-necked Plovers—have been streaming past, and most of the Dowitchers (an early and rarer migrant) have already gone.

Mr. Forbush reports Common Terns as breeding in New England in unusually large numbers and a very encouraging increase of breeding Piping Plovers.

Chimney Swifts were below normal numbers this summer and no flocks of large size of migrating Swifts have been noted this month (August). The Short-billed Marsh Wren and the House Wren have continued to increase as summer residents here.—WINSOR M. TYLER, *Lexington, Mass.*

NEW YORK REGION.—There is strong evidence at hand that the White-throated Sparrow bred this year in northern New Jersey. From July 14 to 31, R. H. Howland observed one of this species in first winter plumage almost daily about his home in Upper Montclair, New Jersey. On July 19, he showed this accommodating bird to T. D. Carter, who also was privileged to examine it satisfactorily at close range. R. N. Baldwin reports a White-throated Sparrow heard singing in a swamp at Harrington, N. J., on the mornings of June 13, 14 and 15.

Migration of land-birds became perceptible in late July, as evidenced by the appearance of the Water Thrush at Botanical Gardens, July 29 (F. F. Houghton). There was an increased movement on clear, autumnlike days, which came in mid-August, but aside from August 14, no flight of moment. Griscom and Boulton report a rare Mourning Warbler, Central Park, August 14. The

Tennessee Warbler at Riverdale, August 9 (Griscom) is very early. On the same date the Yellow-bellied Flycatcher was observed in Central Park (Griscom). At Bear Fort, north-western New Jersey, the Yellow-bellied Flycatcher was observed August 14 and Olive-sided Flycatcher August 19 (W. D. W. Miller).

On August 10 Griscom and Boulton observed at least a dozen adult Roseate Terns at Long Beach, a species very seldom noted so far west on Long Island. On August 12, 4 Caspian Terns are reported at Barnegat Inlet, N. J. (C. A. Urner). A small number of Bonaparte's Gulls appear to have spent the summer. Several Gulls between Perth Amboy and South Amboy, June 16, were so identified (H. Thurston), and 15 to 20 Bonaparte's Gulls reported from the same locality July 28, the same number from Long Beach, N. J., in two flocks July 29 (Urner and Boulton).

Notable summer shore-birds at Jones Beach, Long Island, are a Hudsonian Curlew and two Sanderlings, June 24 (Griscom, Boulton and Urner). The Curlew would seem to be an early south-bound bird, the Sanderlings late north-bound or summering birds. The marshes along the south shore of Long Island have been unusually dry during the first half of the presence of south-bound transient shore-birds in this latitude. With less than the usual available feeding-ground there have been few Pectoral Sandpipers, and the Lesser Yellowlegs apparently far below its average numbers. The Least Sandpiper at Mastic was two weeks late, not observed until July 15. The flight of Semipalmated Sandpipers on the other hand, westward low over the waters of the South Bay in late July, which has been scant for several years, was as extensive as formerly. Numbers of the Hudsonian Curlew are estimated as 50 per cent greater, and of the Willet 5 times greater than they averaged for the ten-year period, 1911 to 1920.

Mastic, July 21, a date which should mark the height of Curlew migration, 24 individuals in three flocks were counted passing east to west, during 1½ hours' observation at a point on their line of flight. Similarly, in 2½ hours on August 4, 14 Willet were counted passing west to east, in three flocks.

We base an hypothesis that our fall migration Willet are from the Gulf Coast, on their being larger than the Virginia breeding bird, and on their direction of flight being opposite to that of other shore-birds.

On June 17, at Wyanokie, N. J., Carter and Howland found a male Blue-wing and female Golden-wing Warbler mated, banded this female and four of her young, recently out of the nest. This brood was located only a mile or so from the nest of a male Brewster's Warbler (48,866) mated with a Golden-wing, but in dissimilar territory from the wood glades where that was placed, namely, in overgrown pasture-land with small cedars and sumack, flanked with a birch thicket at the edge of a wooded hillside. At Wyanokie, on June 30, Boulton and Carter observed a male Golden-wing feeding a young Lawrence's Warbler very close to the above-mentioned Brewster's Warbler nesting-site; an interesting point, as instances with which we are familiar for breeding Lawrence's Warblers, have been in Blue-wing, not Golden-wing territory. On July 14, Carter noted one or more young Brewster's Warblers in a scattered mixed flock of Blue-winged, a few Golden-winged and other Warblers at Boonton, N. J.—J. T. NICHOLS, *New York, N. Y.*

PHILADELPHIA REGION.—Weather conditions for the period under consideration average normal, the very dry spell of early summer being equalized by almost daily showers during late July and early August.

It is the sea coast that holds the attention of the bird student at this time of the year, birds apparently being much more common and certainly more easily observed than at inland points.

During a five-day trip in and about Cape May, N. J. (June 18 to 22) eighty species were noted. Of the breeding birds, a nest and four young of the Savannah Sparrow, June 20 was of considerable interest. This is perhaps the southern limit of this bird's breeding-range along the Atlantic coast.

Non-breeding water fowl observed:—Cape May, N. J., June 18, Loon, 1; Old Squaw, 1; Scoter, 10. Grassy Sound, Cape May County, June 20, White-winged Scoter, 2; Red-breasted Merganser, 6.

Migrant or non-breeding shore-birds:—Atlantic City, N. J., June 17, Least Sandpiper, 20; Knot, 30; Semipalmated Plover, 1; Turnstone, 2. Cape May, N. J., June 19, Semipalmated Sandpiper, 6; Yellowlegs, 1. Grassy Sound, June 20, Red-backed Sandpiper, 2; Least Sandpiper, 3; Sanderling, 1; Knot, 5; Black-bellied Plover, 2; Turnstone, 4. Same locality, July 8, Least Sandpiper, 2; Sanderling, 2; Semipalmated Plover, 1.

Compared to this scattering of early summer shore-birds, the results of two later trips are given. Atlantic City, July 29, Pectoral Sandpiper, 1; Least and Semipalmated Sandpiper, 50; Yellow-legs, 10; Hudsonian Curlew, 8; Dowitcher, 200; Sanderling, 10; Knot, 30; Semipalmated Plover, 6; Turnstone, 5. Grassy Sound, August 5, Least and Semipalmated Sandpiper, 200; Yellow-legs, 10; Willet (Western), 8; Hudsonian Curlew, 25; Dowitcher, 10; Semipalmated Plover, 15; Turnstone, 12.

It seems quite probable that with one or two exceptions the shore-birds found on the coast during the early summer (scattered individuals can be found from mid-June to mid-July) are non-breeding birds. The water-fowl certainly are, why not the shore-birds?

Nesting sea-birds of the New Jersey coast appear to be holding their own. In the case of the Laughing Gull and Common Tern, they are gradually increasing. Three colonies last year were found to contain both Common Terns and Skimmers. This year, they were almost deserted. Searching about for the cause, it might be attributed to three reasons—rats, high tides and persistent robbing of the nests. Rat-tracks were found quite numerous in one colony. Forty birds were found in a Least Tern colony which last year contained about thirty. Eight nests were found, two with young. The largest colony of sea-birds discovered this summer was made up of about 200 Common Terns and 50 Black Skimmers. A set of Tern's eggs in this colony would have made the heart of an oölogist thrill with delight. These eggs were plain robin's-egg blue except one which had very faint spots. They differed so widely from eggs nearby that a careful watch was kept on the nest until a Tern settled on it. On a later visit to this colony 100 young Terns and 12

young Skimmers were noted. At this time (August 5) many of the nests contained eggs.

Other records of interest—Riverside, N. J., June 16, Black Terns (Yoder and Gaede). Stone Harbor, N. J., June 20, Roseate Tern (Potter).

With the able assistance of Mr. John D. Carter, an intensive study of the birds of the Mt. Pocono region was made (June 23 to 28). Seventy-six species were recorded. Among the most interesting being Alder and Yellow-bellied Flycatchers (nests of both with eggs), Siskin, Myrtle Warbler (feeding young), Mourning Warbler and Golden-crowned Kinglet (nest with young). Several Ruffed Grouse with healthy broods indicated a good breeding-season.

Comparing the Pocono birds with those found at Cape May, thirty-three not found in the coast regions were observed in the mountains. This made a list of 113 birds during a ten-day period in the latter half of June, all within a comparatively short distance from Philadelphia.—JULIAN K. POTTER, *Camden, N. J.*

WASHINGTON REGION.—During the months of June and July, 1923, the bird observers about Washington, D. C., had little of special interest to report. The month of June was notable for two periods of unusually hot weather for the time of year. One of these began on the very first day of the month and had naturally the effect of starting north what few transients still remained. This was, therefore, not a good season for obtaining late records of spring migrants.

Apparently the heat had little effect on the singing of birds, except to silence them earlier in the day than during cool weather. The song period of many species, such as the Wood Thrush, Song Sparrow, Robin, Red-eyed Vireo, Cardinal, Carolina Wren, Tufted Titmouse, and others, continued well toward the last of July, as is usual.

On July 3, 4, and 7, a pair of Rough-winged Swallows, which had evidently reared their young along Rock Creek in the Zoölogical Park, led their brood into the built-up portion of the city surrounding, where in the yard of a house not far from the writer's home they marshaled the young on a tele-

phone wire, brought food, and taught them to care for themselves.

The Vesper Sparrow, which is in this vicinity a rare and local summer resident, was found on June 8 near Hunting Creek, Virginia, by Miss Katharine H. Stuart. It is also usually to be found northeast of town in the country between the city of Washington and Laurel, Maryland.

The American Bittern, which breeds probably more or less regularly, but is not often observed in summer on account of its retiring habits in the marshes where it lives, was seen this year by Miss Stuart about the first of July in a marsh near Four-Mile Run, Virginia, which is only a short distance from the city of Washington. At the same time she found there two Scaup Ducks, probably the Greater Scaup, which date is fully a month later than either the Greater Scaup or the Lesser Scaup has ever been noted in the vicinity of Washington, with the single exception that the former is reported as having once nested in this region; otherwise the latest date for the Greater Scaup is May 27, 1906, and for the Lesser Scaup, June 1, 1913. Whether the pair of birds seen this year had nested near Four-Mile Run was not determinable.

Purple Martins have been seen regularly in the city of Washington and its environs during the months of June and July, but local ornithologists have so far not been able to locate a roost in the city of Washington, as has been the case here for a number of years past. The birds, however, are doubtless roosting in at least small numbers at some point in the city; but since this roost is usually changed from year to year, and sometimes changed once or twice during the same season, it has probably this summer simply escaped observation.—HARRY C. OBERHOLSER, *Biological Survey, Washington, D. C.*

OVERLIN (OHIO) REGION.—The summer has been warm with periods of hot and cool weather. The dryness has been offset by frequent showers which, however, were generally of such short duration as to do little good. Spells of dry weather forced the birds to seek out every little pool of water so that bird-baths were seldom devoid of life.

The flocking of the Bronzed Grackles has

been interesting this summer. About the middle of June the Grackles sallied noisily around in groups of three, four, and five. They were so very noisy at this time that they won the condemnation of many people. They were unusually numerous and therefore were constantly to be seen and heard. During July these small groups began to band together, and by the end of the month could be observed at dusk in flocks of hundreds flying in a southeastwardly direction over town to their roost. By the middle of August they were less frequently seen and then mainly in large flocks so that their presence was not so obtrusive and obnoxious.

Probably the most interesting record of the summer is that of seven Mockingbirds observed on June 21. They were all found resting on the telephone wires between Oberlin and Kipton, a distance of about five miles. As they were not reported again during the summer, it is a question if they remained to breed.

By July 1 nearly all the summer birds had nests containing young, and probably because of the cool, spring-like weather were in full song. All the nesting birds have been unusually well represented this season. The Upland Plover and Migrant Shrike have been common all summer; Catbirds seemed especially numerous on July 8. The Yellow-billed Cuckoo was heard almost daily, both in town and in the woods, but its cousin, the Black-billed, was found only a couple of times. Cedar Waxwings have been about continually. Purple Martins and Scarlet Tanagers have been common. The Veery was noted once during the summer, evidently nesting. Traill's Flycatchers were to be found along streams and damp places in nearly all the large woods. The Crested Flycatcher was likewise quite numerous. Kingbirds and Red-headed Woodpeckers were very numerous on July 29, showing a favorable nesting. A Grebe, probably the Pied-billed was reported from the Water-Works reservoir within the village limits of Oberlin during July. Among the Warblers, the Northern Yellow-throats have been the most prominent, followed in order by Yellow Warblers, Ovenbirds, Redstarts, Blue-winged Warblers, Louisiana Waterthrushes, and Cerulean Warblers, while the Black and

White Warbler was noted once on July 19. The Black-throated Green Warbler, an unusual nester, has also been noted (C. T. Robinson).

In regard to the fall migration, no migrant warblers have as yet made their appearance. A single Nighthawk was observed on August 14 winging its way slowly southward, which, with the flocking of many species and the restlessness manifest among the Swallows, indicates that the movement will soon be in full sway.—S. CHAS. KENDEIGH, *Oberlin, Ohio*.

CHICAGO REGION.—After the cool spring the early summer found us with a bird population which most observers estimated as considerably lower than normal. Dry weather prevailed during June and July, but the first week of August was notable for the number and severity of its storms.

Both nesting and moulting seems to have been somewhat delayed this year, but early migration southward has progressed normally.

Among the most interesting breeding records for the region are those made by Mr. Benjamin T. Gault. He has made many visits to the Calumet district, where he has had a colony of Black Terns under observation. He reports a most successful year for this colony. Twelve nests were found and watched. On his visits of June 27 and 29, the young birds were found to be well matured. They had left the nests but remained in their vicinity. Mr. Gault found two pairs of Wilson's Phalaropes at this time. The birds were evidently nesting. These birds were formerly considered common as breeders and summer residents in the Calumet region, but of late years they have not been frequently reported.

At Hyde Lake on June 27, Mr. Gault found Yellowlegs present, a flock of six being seen. These may have been migrants from the north, but the exceptionally early date for such an occurrence would indicate that they might be non-breeding birds summering south of the nesting-range. From Glen Ellyn, Mr. Gault reports Upland Plover young in the downy plumage on June 30.

The writer was somewhat surprised on July 1, when he observed an adult male Yellow-bellied Sapsucker in Jackson Park.

Mr. Gault, with C. J. Hunt and H. L. Fulton, again visited the Calumet district on July 22, reporting a Dowitcher, and flocks of Least and Semipalmated Sandpipers and Yellowlegs.

In Lincoln Park on August 9, the writer saw Common Terns, Pectoral and Semipalmated Sandpipers and Semipalmated Plovers. The presence of a Grinnell's Waterthrush would indicate that Warbler migration had begun.

J. D. Watson and the writer visited Hyde Lake on August 10 and the Dune region near Tremont, Ind. on August 12. We found Pectoral, Least and Semipalmated Sandpipers in fair numbers. One large flock was noted at Hyde Lake. Several Sanderlings were seen there and a few Yellowlegs and Solitaries. Killdeers were unaccountably absent. No shore-birds were found in the Dunes. Moulting was evidently in progress and the birds were very quiet. But little of interest was seen. One Henslow's Sparrow was found near Mineral Springs where this bird has been found breeding.—GEORGE PORTER LEWIS, *Chairman Report Committee, Chicago Ornithological Society*.

MINNESOTA REGION.—The weather during the last half of June and the first three weeks of July was excessively hot with, for the most part, unusually warm nights. The humidity was also often high which added to the oppressiveness. Afternoon temperatures of 80° to 90° were reached almost daily and not infrequently the latter figure was exceeded. The maximum was reached on July 9, when, after a night of a minimum of 70°, the mercury rose to 97° in the afternoon—the hottest night and day of the season. On July 24 there came a change to cooler weather with morning and evening temperatures in the sixties and mostly clear and pleasant days.

About the close of the third week of June there were two or three days of severe, recurring storms accompanied by heavy downpours of rain over most of the state. Since that time the rainfall has not been up to normal and the subsidence of the water-level in the lakes, ponds, marshes and streams of the entire state, referred to in the last chapter, has steadily progressed. In some cases

shallow lakes and ponds have completely disappeared, marshes have become dry and the lowered water-level in many of the larger lakes has encouraged a dense growth of aquatic plants and algae in the shallower bays and along the shores. Many smaller streams are either entirely dry or choked with vegetation.

The deficient moisture and excessive heat have seriously affected small grain and other crops over considerable areas. However, the wild berry yield has been abundant especially in the blueberry regions in the northern part of the state. Last year the basswood or linden trees 'rested' quite generally hereabouts but this year they flowered and fruited profusely. Apple and plum trees in the vicinity of Minneapolis are heavily loaded with fruit.

Circumstances interfered this year with keeping a summer nature calendar, so only the following fragmentary notes are available.

On June 16, a few exceptionally early white water lilies were seen in bloom near Minneapolis. It is usually not until about the Fourth of July that they are to be found commonly in the southern half of the state.

Shortly after the middle of June a trip was made by the writer to the Crystal Bay region on the north side of Lake Minnetonka, in the Minnetonka Game Refuge, to investigate, at the request of Mr. Avery, State Game and Fish Commissioner, certain complaints that had been made that the Ring-necked Pheasants were injuring crops in that locality. It was stated by several residents that this bird was doing much damage to sprouting corn and garden vegetables. The Pheasants have increased greatly of late in a number of places in the state and in this particular locality they are now so numerous that in the spring the crowing of the cocks can be heard at short intervals all day long. During the breeding-season they are to be found chiefly in willow-grown marshes and similar lowlands. A tract of six acres planted to corn was visited. This field was not fenced and was almost entirely surrounded by swamp and meadow covered with bushes and rank vegetation—the natural breeding haunts of the Pheasants. A first planting of corn had been entirely eaten by the birds. They en-

tered the field from all sides and dug up with their bills the sprouting kernels as soon as the blades appeared above the surface. At the time of my visit (June 16) a second planting was about one-third gone and a little later the entire field was cleared a second time. This ended the attempt to raise corn at this place. Another farmer not far distant reported a similar occurrence. The gardener on the first farm said that at five o'clock in the morning a few days previous to my visit he had counted 30 Pheasants in the vegetable garden including a hen with a large covey of young. They made a clean sweep of the peas, beans and melons as fast as they came up. This garden bordered a willow-grown marsh regularly used by the Pheasants as a nesting-place. Adjoining this garden was another garden similarly located that had suffered in the same way, two or three plantings being necessary to secure a successful crop. Later in the season while corn is still 'in the milk' the Pheasants sometimes feed upon the soft kernels after tearing open the ears after the manner of the Blackbirds, Crows and Raccoons. Cornfields and gardens on the uplands distant from these marshes showed no damage. Only one other complaint, from another part of the state, has come to the Commissioner thus far.

The above were the findings in this limited investigation and while the damage inflicted was annoying and discouraging to those who suffered, it does not seem that they should constitute a serious arraignment against this valuable and beautiful bird that is only now becoming well established after so much labor and expense. Rather it would seem attention is called to the wisdom of planting such crops as they select for food at a sufficient distance from the birds' chosen haunts. The Pheasant is too important an acquisition to our depleted game-bird list to be subjected to adverse criticism unless the charges against it should be widespread and irremediable. Thus far there has been no open season in Minnesota but when shooting is permitted there will undoubtedly be a great diminution in their ranks as they are now easily found and are not at all wild.

From June 20 to July 6 Mr. Kilgore and the writer were in Itasca County, in the ex-

trema northern part of the state, listing the breeding birds of that region but especially making a search for the nest of the Evening Grosbeak. For several years past evidence had been accumulating that this Grosbeak spends the summer in several localities up near the Canadian boundary, but no one has reported finding the nest in this state thus far. We found a number of the birds without difficulty but after a thorough and systematic examination of the dense and trackless wilderness in which they apparently were nesting, we failed to locate the colony.

Another still more exhaustive search was made later by Mr. Kilgore and Prof. N. L. Huff without result. On our arrival June 20, the birds were apparently not mated, as they were travelling in little parties, unequal as to sex. About July 1, they had seemingly mated and were seen thereafter mostly in pairs. We trapped and banded twelve birds and examination indicated that they were incubating. The birds had bare bellies and thickened abdominal skin. Where they came from and where they went was the problem that remained unsolved. We found them principally at two places some four miles apart where they were eating the earth about the doorsteps and porches of a farmhouse and a summer cottage. They came at first in little flocks and later on in pairs at intervals all through the day, remaining only long enough to dig up and swallow a stomachful of the earth. Examination of the earth showed that it was strongly impregnated with salt which unquestionably was what attracted the birds to these spots. They were always very eager and very greedy to begin eating when they arrived as though they could not wait another minute. The origin of this salt was made plain when it was found that the occupants of these houses made ice-cream frequently and often spilled or threw out the brine on the ground nearby. In one instance the salting of fish was partly responsible. The Grosbeaks were very tame and unsuspicious and when a pull-string trap was set over the saltiest spot they readily went under it without other inducement. They were often accompanied by Purple Finches which also ate the salty earth and Miss Carolyn Jensen, of Mound, states that last year a flock of Pine

Siskins visited daily one of these 'salt-licks.' It is recorded by Harold Baynes that both species of American Crossbills are fond of salt. There is a well-established belief that salt is injurious to birds, but in the case of these Finches at least this is clearly an error.

Mr. Bernard Bailey, of Elk River, writes that he has seen more Green Herons the past summer than he had seen in his whole experience before. They were present in considerable numbers and evidently nesting in some densely wooded and flooded islands in the Mississippi River a short distance above Elk River. More of these birds than usual have also been seen about Minneapolis. This little Heron was formerly rather scarce hereabouts and the seeing of one was a matter of special comment.

Mrs. Hodson, of Anoka, reported that by the middle of July the Bobolinks in that locality were flocking and that the adults were showing evidence of moulting. A flock of 30 was seen on July 19.

On July 27, a single Eave Swallow's nest was seen by the writer on a barn some 20 miles south of Minneapolis in Scott County. The birds were feeding young in the nest. This is the first time that I have seen this Swallow in many years. Mrs. A. E. Cook, of Minneapolis, reported a small colony near Chanhassan, Carver County, two or three years ago and Mr. Lester R. Badger, of Minneapolis, has found a few nesting at Frontenac in Goodhue County, but it has largely disappeared from the state, where it was a common nesting-bird many years ago.

On August 6, a visit to the preserve of the Long Meadow Gun Club, along the Minnesota River ten miles south of Minneapolis, revealed the presence of many Ducks that had bred there. A flock of 50 Mallards and a few Blue-winged Teal and Pintails were feeding at the mouth of a little stream. Local Ducks are reported to be abundant in the sloughs of western Minnesota and North Dakota.

Last spring what seemed to be an unusual number of shore-birds passed northward. In late July, they began straggling back into southern Minnesota and by early August many had returned and were loitering and feeding in flocks on the mud-flats and sandbars left by the wasting ponds and lakes.

These late-summer and fall assemblages present to the bird student most attractive and interesting pictures and, at the same time, offer most difficult problems if the attempt be made to unravel and name the varied personnel. Frequently as many as ten or twelve species will be intermingled in the same gathering and, when startled, all will rise together in the same close-ranked, rapidly-circling flock. The clear, resonant notes uttered by some of these visitors from afar, as they call back and forth or announce their arrival on the feeding-grounds, are among the most melodious and appealing of bird voices.

Mr. A. C. Rosenwinkel, of St. Paul, reports the first Pectoral Sandpipers at Chisago Lake, Chisago County, on July 26, 3 Lesser Yellow-legs on July 27, 3 Solitary Sandpipers on August 1, and 6 Least Sandpipers on August 2. All became common soon after these dates.

Mr. Alfred Peterson, of Pipestone, visited Lake Benton, Lincoln County, in the southwestern corner of the state, on August 5 and found there a considerable gathering of shore-birds of which he made note as follows: Semipalmated Sandpiper 100, Least Sandpiper 100, Pectoral 100, Lesser Yellow-legs 20, Solitary 4, Semipalmated Plover 6. On a second visit, August 12, he found the smaller species less numerous and added the following to the former list: White-rumped Sandpiper 6, Red-backed Sandpiper 12, Upland Plover 2 and Northern Phalarope 2. He remarks that it was 'fun' to watch the Phalaropes 'spin' on the water, which is a clever trick practiced by all the Phalaropes to stir up morsels of food from the bottom, which they quickly pick up as they float to the surface.

Not far from Minneapolis, on August 9 and again on August 16, Mr. Kilgore and the writer spent considerable time studying a mixed flock of about 150 waders that were feeding on the mud-flats and in the shallow water of a pond of several acres that had reached, in the process of drying up, a stage that just suited the special needs of such birds. The most numerous species were Lesser Yellow-legs, Pectoral, Least and Semipalmated Sandpipers. But the most interesting members of this flock were one

Stilt Sandpiper seen on the 9th and 4 on the 16th, as it has always been a rather rare bird here, at least in the eastern part of the state. This bird while feeding is a deep prober, often submerging its entire head and neck as it rapidly thrusts its long bill vertically into the soft and oozy bottom. Its long and slender legs, long bill (for its body size), the broad light stripe over the eye and white rump are field marks that aid in distinguishing it from its associates. They mingle freely with the Yellow-legs and Pectorals. The bill is longer than the bill of the Lesser Yellow-legs, though the body is decidedly smaller. The Yellow-legs are not 'probers,' but pick their food from the surface as they move rather slowly about. It is a fascinating pastime to sit and watch the peculiarities of a lot of these birds of different kinds. They are usually tame and indifferent and will permit, with little if any concealment, as close an approach as is necessary.—THOS. S. ROBERTS, *Zoological Museum, University of Minnesota, Minneapolis, Minn.*

DENVER REGION.—With the onset of real summer each year there seems to be an absence of birds, or at least a noticeable diminution in those previously common. I imagine that everyone has observed and commented on this, explaining it, perhaps as I have, as only an apparent diminution. When I see the swarms of young Robins hereabouts, and think too, that two broods are raised, my imagination pictures the old birds as too busy filling these youngsters with worms to sing or be much in evidence. Perhaps this makes one feel that there are fewer birds about. I have never seen more Robins in this vicinity in any previous year; Miss Copeland tells me that the same is true of Grand Junction, but that the extensive waves of Robins which passed through her region in the spring left only the western subspecies as summer residents, none of the darker white-tipped-tail forms remaining as breeding birds.

This summer has been, so far, ideal as to weather conditions, which may have promoted the successful nesting of so many Robins, and also that of many Wood Peewees, Doves and Lark Sparrows. It may also

account for the unusual number of Pale Goldfinches noticeable in the city: just now this species is busy with nidification, nevertheless the males are singing with their wonted vigor and brilliancy.

I do not recall ever seeing so many Lark Sparrows in and about Denver as I have during the past two months: today (August 14) during a short drive east of the city dozens and dozens of this handsome Sparrow and their young were seen in the weeds along the road and fences. They also were common in July at Fort Logan; during a two weeks' stay there I saw the species come daily onto the parade and into the training-camp area in considerable numbers. Their cheerful song was a source of endless delight.

There has seemed to be a decided increase of Barn Swallows about Denver this spring and summer. I very much hope that this is real.

The Violet Green Swallow never remains in Denver, so far as my experience shows, being in the city only a short time during the spring migration: it has occurred in large numbers in the Grand Valley and in and about Grand Junction all summer, while the number of their young flying about this region late in July would indicate that the nesting of these birds had been most successful. Miss Copeland believes that many nests are placed in the cliffs of the nearby Gunnison River.

I have never detected the Rock Wren breeding in this city, though I know it breeds in the foothills fifteen miles west of us, and returns to Denver as early as August 15; a pair of these Wrens with three nearly-grown young was seen in Grand Junction by Miss Copeland on August 6, indicating in all probability that this pair had bred in Grand Junction or in its immediate surroundings. However, these Wrens are restless little chaps and this particular family may have wandered in from the higher surrounding country.

The season now passing has disclosed many Nighthawks in this region, all those seen so far having been of the western subspecies; on August 11 these birds were remarkably common east of Denver, flying about in veritable flocks. On the same day many Arkansas Kingbirds, especially full-grown young, were noted as I drove to and beyond

the edge of the city. Miss Copeland writes me that this Kingbird has been very common in her neighborhood, and has seemed unusually successful in raising its young.

The incidence of the Mockingbird in Denver and its region, and in the Grand Valley and the neighborhood of Grand Junction during the past eight weeks is of more than passing interest. I have seen the species but a few times in this vicinity, probably not more than two different individuals, while it has been detected in and about Grand Junction, and in widely separated places thereabouts, to wit, Clifton, Orchard Mesa and Fruita. The Mockingbird rarely comes under Miss Copeland's observation so that it is obvious that there has been an unusual number in her region. Grand Junction has apparently been fortunate also in having had a large Bullock Oriole population, while in my neighborhood this bird has been uncommon.

To offset the abundance of some species in Denver there has been a decided scarcity of others besides Bullock's Oriole; there have been notably fewer Yellow Warblers, Wood Peewees, Brewer's Blackbirds and Black-headed Grosbeaks. The last species adds so much to the summer season by its delightful song that one feels its absence more, perhaps, than that of any of our other songsters.

There are many small lakes and reservoirs immediately southwest of Fort Logan many of which are densely bordered by tula growth; the number of Yellowthroats and young Coots in these cat-tail areas was striking in July. Even a few mosquitoes did not detract from the fascination of watching these birds, more especially the old Coots feeding their young. All of the eastern slope of Colorado well out on the plains has many of these small ponds, reservoirs, and lakes, and if all harbor as many breeding Coots as those around Fort Logan, it is no wonder that in the fall thousands of Coots are to be seen on the areas of permanent water.

Miss Copeland writes me, with much sorrow, that the orchardists in her region are shooting large numbers of Robins because of their destruction of fruit, and that they unfortunately do not stop at shooting Robins, but also kill all birds including their best friend the insectivorous bird. Unhappily

this is an old story. The acquisition of wisdom is a very slow process; many people are afflicted with mental near-sightedness, so how can one expect them to have distant vision.—W. H. BERGTOLD, *Denver, Colo.*

PORTLAND (OREGON) REGION.—The summer season in the Portland district has not been marked by any unusual happenings in the bird world. The summer has been cool and rather more rainy than usual and the birds seem to like it.

Black-headed Grosbeaks, Bullock's Orioles and Green-backed Goldfinches appeared to be more common than in past years in the vicinity of my home.

Bob-whites, introduced years ago, did well. Two broods hatched in my garden are well-fledged and still doing valiant service as bug destroyers. It has been a real pleasure to watch them foraging in the garden, knowing that every trip across it reduced the insect and worm population.

Mr. S. G. Jewett reported the first flock of migrating shore-birds on July 4. A flock of small Sandpipers, either Least or Western, flew by him some distance away and could not be identified. California Gulls appeared on the Willamette River about July 15.

Ground-nesting species such as Savannah Sparrows, Vesper Sparrows, Western Meadowlark and Horned Larks of various sub-species hatched well and appear to have reared a large number of young. During the past four weeks these species have been very conspicuous. On the other hand, since the breeding-season has passed, Robins and Cedar Waxwings have not been so abundant in my neighborhood.

The writer spent part of the month of August in the Blue Mountain district of northeastern Oregon. The usual mountain birds were noted. Clarke's Nutcrackers were the most conspicuous and noisy birds. Western Chipping Sparrow, Cassin's Purple Finch, Pine Siskin and Mountain Chickadee were abundant in the order named.

While crossing a pass in the Wallowa Mountains at about 8,500 feet altitude on August 21, the calls of a nest full of young birds on a ledge overhead attracted my attention. While I stood wondering what they might be, a *Leucosticte* flew to the ledge

with food in its beak. Four trips to the nest were made by this pair while I watched. While the Hepburn's is a very abundant winter visitor to this section of Oregon, this is my first breeding record and one of the first for Oregon outside of the Cascades. Pipits, another high-mountain form known to breed in the Cascades, were also present in numbers although I do not know that they were breeding.—IRA N. GABRIELSON, *Portland, Oregon.*

SAN FRANCISCO REGION.—The usual summer weather conditions have prevailed in the San Francisco region: 'warm spells' of two or three days followed by several days cooled by morning and evening high fog.

During this quiet season among birds, not many reports of special interest have come to hand. East of the Bay, in the Berkeley hills, the most notable discovery was that of a nesting pair of Sharp-shinned Hawks. The nest was located in a live oak a short distance beyond the University of California stadium. On June 16 this nest contained three one-third grown young, though it originally held four eggs. Both parents were much in evidence while the nest was being examined.

On July 2, a brood of nineteen California Quail was hatched on the west side of the Museum of Vertebrate Zoölogy. Before the day was over a pair of Jays had killed a number of the brood to feed to their family of fully-fledged youngsters. On August 5 another brood of Quail about a week old was noted in Strawberry Canyon. Another family of Jays was very much in evidence about the Museum building the first two weeks of August.

From July 15 to 29 a Robin was singing daily from the top of a bay tree in Strawberry Canyon, probably indicating late nesting activities. Three Robin nests have been noted earlier in the season in various parts of the University campus.

A family group of Western Flycatchers was observed on July 14 and 19; a family of San Francisco Towhees, still in spotted plumages, was seen feeding with parents on August 6; and at this writing Nuttall Sparrows are still feeding young in the shrubbery around the Campanile at the University of California.

Across San Francisco Bay, in Marin County, on July 22 a full-plumaged male Audubon Warbler was observed at Rock Spring. The presence of a few Audubon Warblers in this section several summers leads one to suspect that they are probably breeding there.

In the Berkeley hills Pileolated Warblers and House Wrens were seen on August 6; Yellow Warblers in fresh fall plumage have become numerous since the last of July; and Black-headed Grosbeaks are still about. Among the less common visitors a Nuttall Woodpecker was seen on several occasions in July; and a Creeper was observed August 9 and 11.

Evidences of autumn conditions show in the increasing size of flocks of Bush-tits, Green-backed Goldfinches and Linnets, and the appearance of Wren-tits on the lower campus and in city gardens. On the night of August 5, about ten o'clock, Mrs. Allen heard the notes of a seemingly large flock of migrating shore-birds. A Great Blue Heron, an occasional visitor only, was observed flying low over the University campus on August 13.

From farther south, in the coast mountains, Mrs. Allen reports finding the following birds nesting: California Towhee, June 17; Pileolated Warbler, June 20; Russet-backed Thrush, June 28; Olive-sided and Ash-throated Flycatchers, July 2; Violet-green Swallow, July 6; Western Tanager, July 13.

Reports on water- and shore-birds from Alameda and Bay Farm Island are very meager at this writing due to the fact that considerable oil has covered the bay and beaches in this vicinity. One Curlew only is reported from here; another Curlew is reported from the Oakland shore on August 13. Here also on the same date were observed about twenty Bonaparte Gulls and a flock of Sandpipers.—MARGARET W. WYTHE, *Berkeley, Calif.*

LOS ANGELES REGION.—June 17, the song of the Yellow Warbler was heard throughout the length of San Antonio Canyon. At 6,000 feet altitude, the songs of Western Tanagers, California Purple Finches, and the Warbling Vireo predominated. Olive-sided Flycatchers and the Violet-Green

Swallow were seen among the spruces of the higher slopes. Thurber's Juncos, with young in streaked vests, were numerous along the stream banks, while high in the alders well-grown Flycatchers followed their parents about.

Six Nighthawks were seen at dusk hawking about a shallow pool in the San Gabriel, Wash.

In late June, Band-tailed Pigeons and Mountain Quail were frequently seen in the early morning coming to drink at the stream in Bear Canyon, near the cabin of a summer resident.

On June 18, a pair of Western Bluebirds brought four young to the food-table of a Los Angeles Audubon member, and remained about the garden for a month or more. This is the third successive season that a Bluebird family has arrived there on the 18th or 20th of the month. The location of the nest is not known.

July 1 brought a temperature of 100° to valleys and landward slopes of the Santa Monica Mountains. In the hot glare of mid-day few birds were visible in a region thickly inhabited by many species in the nesting-season. Three Ravens, 6 Crows, and many Buzzards gave a touch of life and movement to the parched fields. Los Turas Lake, where Ruddy Ducks found abundant food in June, now appeared deserted. Within the sheltering foliage of the live oaks the resident Titmice, Bush-tits, Goldfinches, and Linnets were found in considerable numbers. The only bird-song heard during a one-hundred-mile drive was that of the irrepressible Yellow Warbler heard from a willow thicket by a little stream in one of the cooler valleys reached by the air from the sea. Near this place a pair of Bluebirds and a Bullock's Oriole were seen.

July 8, an English Sparrow was observed feeding two young Cowbirds. Heretofore in all cases that have come to our notice, the Song Sparrow has been the victim. Purple Martins have again occupied their usual quarters at Pasadena and at Balboa. Small numbers frequently visit Echo Park.

A visitor to a San Bernardino Mountain resort reports flock movements among certain birds in mid-July, as Lazuli Buntings,

which were abundant about the camp July 17, and not again seen during a fortnight's stay. Succeeding these, Western Tanagers swarmed through the region for two or three days to disappear as completely as had the Buntings. Following them the Grosbeaks and the Ash-throated Flycatchers departed. A few days later word reached me of a notable influx of several of these species, and the Warbling Vireo in Pasadena. In early August a young Grosbeak, one of a family that frequents the writer's garden, found his voice, and daily sings from a treetop perch. The soft, low midsummer song of the Mockingbird is now occasionally heard, after the quiet of the moulting season.

Fresh water from interior sources has filled the marshes and shallow pools near Playa del Rey at frequent intervals throughout the summer, resulting in an unusual assemblage of birds at that place, notably, large numbers of Avocets and Black-necked Stilts, which appear to have bred there, though no young of those species have been seen. There are, however, many acres of inaccessible marsh, where security from enemies in the form of Gulls, and the weasels which infest the flats, may have been found. Eggs of these species, and those of Least Terns have been collected. The Terns and Snowy Plover have accepted the bare, dry mud- and alkali-covered flats to which they have been driven from their immemorial home on the sandy beach. Though Gulls destroyed many eggs, and collectors secured evidence of this singular adaptation to changed conditions, some degree of success has crowned the adventure, as some downy nestlings have been found, crouching flat in the footprints left by heavy boots, which have been chosen as nests, in some cases the eggs being surrounded by a few weed-stems. On July 31, two or three downy young were seen hiding in weeds guarded by one parent while the other brought food. Eight full-grown young were strong of wing, taking flight with the adults when the resting flock were approached.

Three Snowy Egrets have summered in the place, and a few Wilson's Phalarope have been seen at frequent intervals throughout June and July.

Two pairs of Northern Phalaropes stopped there on their northward way June 3. On July 19, the first incursion of southbound birds of this species was noted, numbering 21. There have been steady accessions until at the end of the month they were estimated at a hundred or more. The record for northbound Yellow-legs closes June 12, with 3 individuals. On July 16, the returning birds were found in unusually large numbers for this species. It was not possible to make an accurate count, but all the observers were agreed that 100 was a very conservative estimate. In a few days most of these birds moved on southward.

July 4, a few Willets and 100 Least Sandpipers were listed. These had possibly remained somewhere in the area through the summer, as a few Dowitchers and a considerable number of Marbled Godwits and Hudsonian Curlew unquestionably did. July 16, large flocks of one thousand or more Least Sandpipers were found there. Few Western Sandpipers have been seen to date. July 19, more Willets had arrived, and Yellow-legs and Long-billed Dowitchers were numerous. Three Ruddy Turnstones foraged along the beach of one of the broad lagoons, where they were again seen on July 22 and 31. A Black Tern and a Wilson's Phalarope were listed on the 22d. On the 31st., four Black Terns were noted, in company with Forster's Terns. A small group of the latter have summered there. The Avocets at this date numbered about 100. Stilts were nearly as numerous. Semipalmated Plover were first listed July 23, when Bank Swallows were seen with the large flocks of Cliff Swallows that haunt the marshes.

Towards the close of July a few of the Avocets discarded the cinnamon for the white necks of winter plumage. July 26, at White's Point, 3 Black Turnstones, 1 Wandering Tattler, and 1 Spotted Sandpiper were seen. July 31, on the ocean beach at Playa del Rey, Heermann Gulls were seen accompanied by 3 dusky young. Fifty or more Bonaparte Gulls have remained in the marshes throughout the summer. August 9, a Long-billed Curlew was seen at Sunset Beach. FRANCES B. SCHNEIDER, *Los Angeles, Calif.*

Book News and Reviews

BULLETIN OF THE ESSEX COUNTY ORNITHOLOGICAL CLUB. Salem, Mass. 1922. 8vo. 68 pp.

From September 12, 1921, to December 11, 1922, the Essex County Club held 17 regular meetings with an average attendance of nearly 23 members or nearly one-third its membership; a record which bespeaks a live organization.

The leading articles in this, the first number of the fourth volume of this publication, relate chiefly to water-birds and include 'The Music of the Golden-eye' by Charles W. Townsend; the 'So-Called Suicide of Wounded Water-birds' by Edward Howe Forbush, who presents testimony showing that wounded water-birds (chiefly Ducks) will at times cling to submerged vegetation until they die; 'Game and Shore-birds in Essex County, Massachusetts, 1922' by John C. Phillips; 'The Ipswich River-bird Trip' by Ralph Lawson, an account with a list of the Club's Sixteenth Annual outing, in which 45 members and guests took part; 'The Bay-breasted Warbler on Mt. Monadnock, New Hampshire, in Summer' by Charles L. Whittle; 'Concerning the Field Identification of the Barrow's Golden-eye' by Arthur P. Stubbs; an annotated list of birds observed by members, and 'The First Year of the New England Bird Banding Association' by Lawrence B. Fletcher.—F. M. C.

NEAR NATURE'S HEART. By CRAWFORD JACKSON. A Volume of Verse. Published by the author. Atlanta, Ga., and Guilford, N. C. 8vo. 96 pp., 4 colored plates; numerous half-tones.

The author of this volume touches life at many points, but love of nature is his dominant note and it finds frequent expression in verses to birds. Thus his muse pays tribute to 'The Birds' Orchestra' wherein voice after voice joins the morning choir; to the Hermit Thrush and to the Mockingbird, and his camera supports his pen in the not always successful effort to bring the living bird to the printed page.—F. M. C.

MATESHIP WITH BIRDS. By ALEC. H. CHISHOLM. With photographs from life by the author and others. Whitcombe and Tombs Ltd. Melbourne and London. 1922. 12mo. 196 pp., many half-tones.

This is the type of book by which the discoveries of the ornithologist become a part of the general store of knowledge. An inherent interest in birds is practically universal. When it is strong enough to force its possessor to go out and learn for himself we have the born bird-student. But in most cases feeling of mateship, or kinship, with birds must be aroused and Mr. Chisholm's volume is of the kind to awaken his readers to an appreciation of the beauty, charm, and value of birds. Designed primarily for an Australian audience, its literary merit should give it a wider field and we commend it to everyone who, through a series of pen pictures, would gain some idea of Australian bird-life.—F. M. C.

BIRDS AND MAMMALS OF THE PRIBILOF ISLANDS, ALASKA. By EDWARD A. PREBLE and W. L. MCATEE. North American Fauna No. 46. 1-128 pp.; (Birds 10-101); 245-255; 7 pls. (map and half-tones).

This paper gives us an excellent summary of the bird-life of this group of islets in Bering Sea, including with what was previously known, the field studies of the senior author who, with W. H. Osgood of the Field Museum and G. H. Parker of Harvard University, visited the group in the summer of 1914 to investigate the status of the fur seals.

Of the 137 species of birds which have been recorded from the Pribilofs, only 23 are known to nest there. Sixteen are classed as regular migrants, six as occasional visitors and the remainder are of more or less irregular or of purely accidental occurrence.

Included in this latter group are some 20 Eurasian species indicating that at least some of the factors which have brought many Old World birds to the New World by way of Bering Straits are still active.

An Introduction by Preble descriptive of

the islands and their faunal position is followed by a fully annotated list in which Preble supplies the notes on habits, while McAtee is responsible for the detailed reports on stomach contents.—F. M. C.

Ornithological Magazines

THE *AUK*.—The July *Auk* opens with an interesting study by A. D. DuBois, of the behavior of a Short-eared Owl, for whose five eggs, three hens' eggs had been supplemented. The Owl hatched the eggs and brooded the chicks faithfully, remaining with one which survived, until it was nine days old, the other two having succumbed to the injudicious eating of wheat kernels at an earlier age. A number of excellent photographs illustrate this article, one of which shows the pupils of the Owl's eyes dilated and expanded independently, when one was in sun and the other in shadow.

A description of spring migration bird-life in Arizona by Florence Merriam Bailey (with a half-tone plate, photographs of Mrs. Bailey's Camp, live oaks, and arid hills) pictures admirably the unfamiliar conditions and unfamiliar birds among the distant arid mountains of that state. Special attention is given to an unseasonable snow-storm in early April, and to those species which few American observers have been privileged to meet except in books. Two pages devoted to the Painted Redstart make real this gem of a bird, which for most of us has existed only in colored plates.

Presence of Franklin's Gull and Harris' Sparrow in the Chicago region, which earlier seems to have been outside their migration route (with other observed phenomena bearing on the subject) leads N. F. Leopold, Jr., to speculate on the origin of migration routes. His general conclusion that change of migration route may be brought about by chance and in many cases preserved and continued by reason of learning, until it again appears in later generations as instinct, seems sound, whether or not all the premises advanced are correct. Correlation of the first song of Cuckoo and Lark, and spring arrival of the Swallow at Montdidier, France, with an 11½-year periodicity in the number of sun-spots, over a period of some

eighty-five years' observation, forms the basis of an article by R. E. DeLury. Tables and charts show the amount of rainfall varying with the number of sun-spots. Lateness of the voice of the Cuckoo varies notably, and of the Lark varies slightly with these two factors, but there is no significant correlation with them and the arrival of the Swallow.

In a note on the economic status of the Bald Eagle in Alaska, E. D. Crabb gives such data as he has bearing on the subject, and enters a plea for an adequate investigation thereof. As it stands today, Alaskan Eagles are a victim to prejudice. The history of a remarkable Purple Martin colony of many years' standing at Greencastle, Pa., is set down by G. F. Ziegler, Jr.

Three general articles have to do with bird-banding. T. D. Carter and R. H. Howland describe their experiences with the brood of a male Brewster's Warbler mated to a female Golden-wing. This male and four of its young were banded, initiating an attempt to verify, by bird-banding, the accepted hypothesis that Brewster's and Lawrence's Warblers are Mendelian hybrids between the Golden-winged Warbler and Blue-winged Warbler. For further progress of this investigation see notes in the season department of August *BIRD-LORE*, under New York region. An excellent photograph of this Brewster's Warbler's nest (by G. C. Fisher) accompanies the article, as also photographs of the bird itself (in a trap) and of the young. Oberholser gives a résumé of bird-migration problems and points out certain aspects thereof which we may hope to solve by systematic trapping and banding, apparently unattainable in any other way. T. E. Musselman, who operated Mr. S. P. Baldwin's Thomasville, Ga., station in 1923, reports on his experiences there (illustrated). Forty-two per cent of the Chipping Sparrows captured were suffering or had suffered from an active foot infection, and by taking the same individual bird repeatedly it was possible to follow the course of this disease.

Faunal papers are 'Notes on the Nesting Birds of Northern Santa Fé County, New Mexico,' by J. K. Jenson, listing 115 species (photographs of landscape); 'Observations

on the Bird Life of Porto Rico,' by P. H. Struthers, listing 115 species; 'Notes on Summer Birds of the Mamie Lake Region, Wisconsin,' by H. H. T. Jackson, listing 89 species (illustrated with text map and photograph of a Loon's nest and the lake where found); and 'The Birds of Wellington and Waterloo Counties, Ontario,' by J. D. Soper, listing 206 species. Jenson writes of the Western Blue Grosbeak that it "seems as partial as the Crested Flycatcher is to using a cast-off snake skin for nesting material and of twenty-three nests located here during the last five years, twenty-one had as a foundation a snake skin, or part of one." Struthers has early dates at Porto Rico for the Turnstone, August 9; Lesser Yellow-legs, August 1; Greater Yellow-legs, July 23; Least Sandpiper, July 15; Wilson's Snipe, August 29; close to the dates when these species become common on the coast of New York, except the Lesser Yellow-legs, which the reviewer has, however, noticed in Porto Rico as early as July 27 (*The Auk*) July, 1916, p. 320).

The eighteenth supplement to the A. O. U. Check-list would have us consider as a race of the Common Crow, the Northwest Crow (*Corvus caurinus*) which in life is quite unlike the adjacent race of the Common Crow, that being indistinguishable offhand from our eastern race of the same.

Though there is the usual varied interest to short items in 'General Notes,' space will only permit of calling attention to records of the Wheatear from Godbout, Quebec (N. A. Comeau), which on their face suggest a breeding colony of that European bird, an astonishing possibility which would seem to call for careful investigation.—J. T. N.

THE CONDOR.—Eight general articles and a number of short notes make up the contents of *The Condor* for May, 1923. In 'Nesting Records of the Dusky Poor-will,' Joseph Dixon shows that although the Poor-will is common west of the Sierras, its eggs are in reality quite scarce in collections. Only about twelve nesting records have thus far been published and to this list seven additions are here made. The table of 19 records shows that eggs have been found at varying dates between March 22 and July 23. A

useful list of 14 papers is appended, thus bringing together the available literature on the breeding of this bird. A companion paper on 'Observations on the Habits of the Prairie Falcon,' by J. G. Tyler, deals chiefly with the food and nesting habits and contains a list of 21 sets of eggs. These sets were collected between March 25 and April 24 and contained from three to five eggs in a set.

Two historical articles comprise Kofoid's account of Boucard's 'Little Known Ornithological Journal,' 'The Hummingbird,' and Casey Wood's publication of 'A Letter from T. M. Brewer to Oshert Salvin,' dated January 9, 1877, in which Dr. Brewer requests Salvin's opinion as to the differences between the sexes of *Leucosticte t. littoralis*. In spite of the interesting account given by Kofoid, the last word has not yet been said either about Boucard or his unique journal in which almost anyone who examines a copy with care will find some new and interesting facts.

Three brief papers on northern birds include Potter's 'Notes on Birds in Southwest Saskatchewan'; Grace Hill's 'Migration of the King Eider at Synuk, Alaska,' 30 miles north of Nome, in the spring of 1915; and Willett's 'Bird Records from Craig, Alaska,' made up mainly of migration records on nine species.

Ross' article on 'The Boy who Hunts' is a plea for encouraging young people to stalk birds and mammals in order to test their skill and powers of observation.

Among the brief notes are interesting records of Clark's Nutcracker at Pacific Grove, Calif., Feb. 2, 1923; a White-winged Dove at Santa Barbara, Nov. 8, 1922, and a Lewis' Woodpecker near Tulsa, Okla., Dec. 24, 1922, all of them occurrences outside the normal ranges of these species.—T. S. P.

Bird-Lores Wanted

1901, January–February; 1902, May–June, November–December; 1910, March–April; 1911, all but March–April; 1916, September–October, November–December; 1921, November–December. Also Indexes for 1908, 1914, 1915, 1916, 1917, 1922.—G. H. SELLECK, *Exeter, N. H.*

Bird-Lore

A Bi-Monthly Magazine

Devoted to the Study and Protection of Birds

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN

Contributing Editor, MABEL OSGOOD WRIGHT

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Bird-Lore's Motto:

A Bird in the Bush Is Worth Two in the Hand

THE forty-first annual meeting of the American Ornithologists' Union will be held at the Museum of Comparative Zoölogy, Cambridge, Massachusetts, October 9 to 11. It is difficult to overestimate the influence which this organization has exerted since its formation some forty years ago. To it we owe not only the Biological Survey and the National Association of Audubon Societies, but also the opportunity of coming together once each year to establish by actual contact, relations which can be developed in no other way. If the results arising from these annual gatherings of bird-lovers could be set down in writing they would form an illuminating chapter in the history of American Ornithology. Interests are stimulated, friendships formed, and sources of information discovered to be drawn on later as occasion arises. In short, a chain of events is started which may materially affect one's career and its outcome. We have in mind a young ornithologist, whose selection as leader of one of the most important ornithological expeditions ever planned in this country is the direct outcome of his attendance at the A. O. U. Congress in Chicago last October.

Members of the A. O. U. receive their official invitation from the Secretary of that organization, but we venture the statement that any bird-student, whether or not he be a member of the Union, will be made welcome at its open sessions to which, indeed, the public is invited. Once there, we wager he will speedily seek to affiliate himself with an organization so dominated by the spirit of

good fellowship, born of common—or better uncommon—enthusiasm, that the stranger soon finds himself among friends.

If one cannot be present in person, he may at least be represented by his name which, with those of his sponsors, may be sent to Dr. T. S. Palmer, Secretary, at the Museum of Comparative Zoölogy, Cambridge, with a request that the writer be considered as a candidate for election to Associate Membership in the Union. The annual dues for this class of members are three dollars in return for which one receives *The Auk*, the official quarterly of the Union, and acquires the very genuine satisfaction of being enrolled with others of kindred tastes. There are now some 1,450 Associate Members in the Union. There should be not less than three times this number. Sectional societies serve an admirable purpose, and they can handle local problems far more effectively than a national organization. But bird-study knows no political or even faunal boundaries. The major problems of the Pacific are those of the Mississippi Valley or Atlantic coast, and they can best be solved by countrywide coöperation.

A VERY practical and unmistakable evidence of the ever-growing interest in various phases of ornithology is found in a demand for teachers of birds, museum assistants and field-workers in ornithology. We would suggest that those who are eligible for positions of this nature place their names on file with the American Museums Association which has its headquarters in the Smithsonian Institution at Washington.

THE use of birds in advertising is further proof of their ever-increasing popularity. Thus sewing-machine and chewing-gum companies issue series of very creditably drawn and colored bird cards. A maker of automobile tires produces a booklet with the not wholly original title of 'What is That?' which includes colored pictures of flowers and butterflies, as well as birds; while the fact that birds' names are becoming part of our every-day language is indicated by such advertisements, for example, as one which assures us that a certain pen is as beautiful as the Scarlet Tanager!

The Audubon Societies

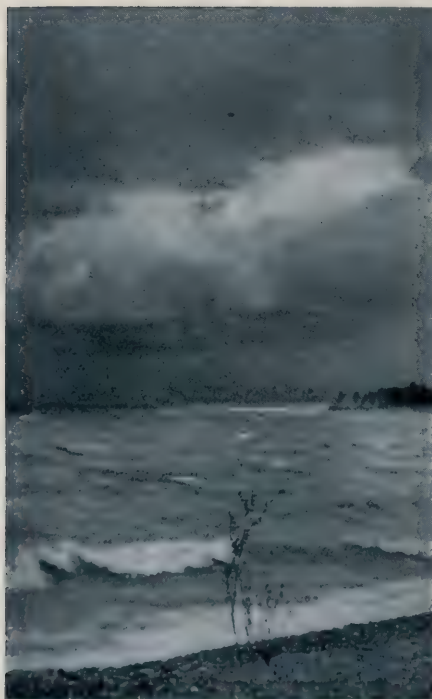
SCHOOL DEPARTMENT

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WHEN THE WILD DUCKS FLY

With Photographs by the Author



OCTOBER AND A GOOD DAY FOR DUCKS

Make your way to some extensive marsh where there are pond-holes beloved by the water-fowl, and watch the wild Ducks fly. I know of no experience more inspiring than standing on the edge of a Duck marsh one of these stormy days of October or early November when the Ducks are really flying.

Flock after flock comes from the north, most of them flying high, and apparently bent only on getting south as quickly as possible before the shallow ponds freeze over. At first so far away that they appear like a thin wisp of smoke against the hurrying clouds, they come on swiftly beating wings, until in a moment they pass overhead and then disappear into the bank of clouds at the south. Very often they are flying low enough so that one hears their wings whistle and can see enough of their

color pattern to satisfy himself as to their species. Usually they are silent, but occasionally they answer the calls of their fellows who are feeding in the ponds below, and then it is a great delight to see them break rank and circle over the marsh, trying to make up their minds that they want to delay their journey long enough to refill their capacious crops.

They seem to know well that many of the voices that they hear and the Ducks that they see are not to be trusted and they must therefore determine that all is safe before they descend to the water. Around the marsh they go in great circles, sometimes so low that it seems they must alight, but, just as often, something alarms them and they climb upward again. Three or four

times they circle and then, coming up into the wind, they set their wings and start the descent. With wings strongly arched, they drop downward, swinging first to one side of the pond and then to the other until when about twenty feet from the water, they begin to back-pedal with their wings. Their bodies come to a vertical position, they drop their legs, spreading their webbed toes and their tails at the same time to ease their descent, and, with a big splash, they land in the water. For a few moments they are silent and stretch up their



A FLOCK OF CANADA GEESE PASSING OVER

necks to make sure that all is well, and then they begin to talk. One who thinks of Ducks as only quacking will be surprised at the variety of sounds that have to be classified under the one word.

The Mallards and Black Ducks are vociferous in their expressions and their voices are real quacks, the females' louder and more rapid, the males' lower, more subdued, and slower in their repetitions. The Teal have high nasal voices and the Baldpates explosive ones, while the cries of the Wood Ducks resemble nothing more than the midnight wail of a sick baby. Although the voices of the male and female Mallards and Black Ducks are much alike, the males of other species have calls entirely different from those of the females. Drakes of the Pintail and Teal, for example, utter peeping whistles almost like the little tree toads called 'peepers,' the male Baldpate calls *whew-whew*, and the male Wood Ducks cry *hoo-eeek-hoo-eeek*. In the fall, however, the majority of Ducks are quite silent until after dark, at which time the marshes often resound with their quackings and other varied notes.

It is the Geese that are noisy during their flights, and one can often hear them honking before one can make out the form of their flock. In great wedges they go over, sometimes a hundred or more in a flock but more often from six or seven to thirty or forty. And such a racket as a hundred Geese can make,

all talking at once! It sounds as though they were all disagreeing as to who should be leader or which way they should go, but, nevertheless, they keep to their regular form and disturb not even the rhythm of their wing-beats. They seem to be in no hurry, their bodies rising and falling with the measured strokes of their great wings, and yet it is but a moment before they, too, have disappeared into the clouds and one hears only the faint echo of their voices.

There are other water-birds migrating, too. Loons, nearly as big as the Canada Geese, pass over in very scattered flocks, each one, apparently, taking no notice of the others, forty or fifty birds taking up half a square mile of the sky. Cormorants, looking like huge black Ducks with rather long tails, may file by in long lines, flying with rather slow beats of the wings or with alternate flapping and sailing. Yellow-legs and Black-bellied Plover, the last of the season, may wheel by, their wild whistles in full keeping with the spirit of the day. But let us take our stand near some large pond where we can get a closer view of such Ducks as may decide to stop off on their journey and linger to feed for a few hours.

It is seldom that wild Ducks permit the close approach that one enjoys with the land-birds, and one must learn, therefore, to identify them at greater distances. It is only where they have been fed and protected for years that they lose their inherent wildness and fear of man and approach so close that one can see all their markings in detail. But it is the charm of their wildness that makes their study so inviting, so we conceal ourselves and await their coming. It is movement more than anything else that attracts their attention and alarms them, so we must be careful about raising our glasses or even turning our heads when they are close, and particularly when they are circling over the



DIVING DUCKS FREQUENTLY ASSEMBLE IN HUGE RAFTS
THESE ARE REDHEADS ON CAYUGA LAKE

marsh before dropping in. Often have I sat motionless in a perfectly exposed place and had the wild Ducks drop into the water within a short distance of me, only to jump with alarm when the slightest motion on my part attracted their attention to me. Indeed, I have had even the wary Black Ducks eating corn from my 'coat tail,' oblivious to my presence so long as I was perfectly quiet. Therefore, whenever the Ducks come at all close to us, in whatever position they find us, we will remain perfectly motionless until they are well past us, or obviously looking the other way.

In the beginning it is well to learn the three types of Ducks, for it makes the identification within each group so much easier. First, there are the Mergansers, or Fish Ducks, or Saw-bills, as they are locally known. They have rather long, narrow bills and crested heads and in flight seem somewhat long and slender of body. Like the diving Ducks, their legs are attached rather far back and they have difficulty in rising from the water, usually 'skittering' along the surface for a short distance. There are but three species in North America, and only the little Hooded Merganser is likely to be found about the marshes, the American and Red-breasted preferring the larger bodies of water or the rivers where fish are more abundant. In October, the males have not yet come into breeding plumage, and all three species, males and females alike, are colored the same, having reddish brown heads, gray backs, and white underparts, the two larger species with conspicuous white patches in their wings.

The second group, called the diving Ducks, include the Canvasback, the Redhead, the two Scaups, the Golden-eye, the Bufflehead, the Ring-necked Duck, the Old Squaw, the three Scoters, the three Eiders, and the curious little Ruddy Duck. Most of them, like the Mergansers, prefer the larger bodies of water, where they sometimes assemble in huge 'rafts' or flocks of hundreds or even thousands of birds. They feed by diving in deep water for molluscs or aquatic plants, and being not so disturbed by the early freezes,



A GOLDEN-EYE, OR WHISTLER.
SWINGING BY

Note the spreading of the primaries on the down-strokes of the wing that causes the whistling sound so characteristic of the flight of the bird

they often do not migrate until late in the season. During the latter part of October, however, large flocks of Lesser Scaups, Redheads, Whistlers, and Scoters will be moving and the first of the Canvasbacks are likely to be seen. They do not often stop in a marsh, however, unless it happens to be an estuary from some larger body of water, and we will have to content ourselves with



DABBLING DUCKS USUALLY RISE STRAIGHT INTO THE AIR

These are female Pintails 'climbing.' The primaries of the rear bird are spread because the wings are on the up-stroke

making a guess as to their identity as they pass overhead. All of them have relatively stout bodies and short necks, and their wings are shorter than those of the dabbling Ducks.

The Golden-eyes will be the easiest to identify, for even if they do not fly close enough for us to see the large white patches in their wings, we will be able to hear the whistling sound made by the air rushing through their spread primaries as they rapidly fan the air. This has given them the name of Whistlers by which they are better known in most places. No one has ever discovered a reason why their primaries should spread more than those of other Ducks on the down stroke of the wings, but a comparison of the accompanying photographs will show that they do, and certainly the whistling of their wings is much louder than with any other species.

The Redheads, Scaups, Ringnecks, and even the Canvasbacks will look much alike to us as they fly overhead, their dark heads, black breasts, and white underparts giving the same color pattern to all four. The Redheads tend to fly in closer formation than the others, and the Canvasbacks often form a V, like the Geese, but these characteristics cannot always be depended upon. The Scoters will appear very black as they go over, darker even than Black Ducks, and, of course, much heavier-bodied and shorter-necked because they are divers, while the Blacks are dabblers. Some of the Scoters will have white in their wings, indicating that they are White-winged Scoters, but the American and Surf Scoters will look just alike from beneath. Young Scoters



DIVING DUCKS CANNOT RISE STRAIGHT INTO THE AIR. BUT MUST SKITTER ALONG THE SURFACE UNTIL THEY GET UP MOMENTUM. THESE ARE CANVASBACKS

can be told from the old ones by their lighter underparts, some being very light on the belly.

If Old Squaws are migrating we cannot miss them because of the striking pattern and the long tail-feathers of the males. From beneath they will appear snowy white, with dark wings and with a broad band of black across the breast. Even the females are quite distinctive with their white underparts and dark wings, though they lack the ornaments of the males. The little Buffheads and the Ruddy Ducks we are likely to mistake for Teal unless we realize the plumpness of their bodies, for they are much stockier than the Teal, though about the same size, and have none of the lightness and grace of flight characteristic of the latter.

It is the dabbling Ducks that are most likely to circle the marsh and drop into the pond before us—Black Ducks, Mallards, Baldpates Blue- and Green-

winged Teal, Shovellers, Pintails, and Wood Ducks. The Black Ducks and Mallards are the largest and usually the most numerous, though at times the Pintails are nearly as abundant. Unfortunately for ease in identification, males and females of most Ducks, except the Black Ducks, are very different in their color patterns and the females of all are much alike. To add to the difficulties, by October, only the male Mallards and Wood Ducks have come into their bright plumages and the other males all resemble their females. One might just as well learn the females in the beginning by their size and shape and what few marks they have and then he will be prepared to identify any Duck that he sees.

The Black Ducks and the Wood Ducks will appear the darkest, all of the others being more of a yellowish or rusty brown, while these two appear blackish brown. The white belly and longer tail distinguish the Wood Duck in any plumage, and the silvery white linings of the wings, seen against the blackish body, will always distinguish the Black Duck in flight. Females of the Mallard, Pintail, and Shoveller are all much alike in their streaked rusty brown feathers, the best field characters being the whitish outer tail-feathers of the Mallard, the slender neck and pointed tail of the Pintail, and the broad bill of the Shoveller. The two species of Teal are so much smaller that they will be confused with nothing but each other, and on the water they are almost identical except for size, the Green-wing being somewhat smaller. In flight, the Blue-wing usually shows its pale bluish 'shoulders,' appearing almost white at a distance. Both male and female Baldpates can be distinguished from the other dabbling Ducks by the conspicuous white patches in their wings, those of the male being very pronounced. They likewise differ in not being streaked, the brown of the breast and flanks being of a peculiar, uniform, cocoa shade.

There is one other dabbling Duck, common in the western parts of the Mississippi Valley, but rather rare in the East—the Gadwall. The female Gadwall is one of the most difficult Ducks to identify in the field, resembling the Baldpate very closely, but being considerably grayer.

It is fascinating to watch the Ducks circling the marsh. One forgets all about the weather, or else hopes for more wind and more snow so that even more Ducks will come down from the north. Once on the water it is interesting to watch them feed, tipping up in the shallow water, standing on their heads and pushing with their feet. The dabbling Ducks do not like to dive if they can help it, though, when driven to it, they can dive very neatly. So they push and strain to reach the bottom by tipping, sometimes sending up jets of water from their feet when they push a little too hard. Suddenly something alarms them. Up go their heads, their necks straight as pokers, and they begin edging away from the spot where they have been feeding, trying to locate the source of alarm. If they see trouble coming, up they go, straight into the air 30 to 40 feet before making off in one direction or another. How differently do the diving Ducks behave under similar circumstances! Any sudden alarm causes

them to dive, and they come to the surface 40 to 50 feet away, and likely as not are flying when they come up. But they cannot rise straight into the air like the dabblers; they must 'skitter' along the surface until they get up enough momentum to rise, and they do not rise high until they have covered a considerable distance. The dabbling Ducks leave a few widening circles to mark the spot they have left, the divers, a long wake.

Of course, it is not necessary to pick out the coldest and most bleak day of October or November to study Ducks. There are Ducks to be found in the



A PAIR OF SCAUP DUCKS DROPPING IN

marshes throughout October and most of November, though not in such large numbers. Early in the morning and just at dusk they get up and fly around, so these are the best times to watch them. And always bear this in mind, if the weather in town seems very disagreeable, for those of us who are down on the marsh, 'it's a fine day for Ducks.'—A. A. A.

SUGGESTIONS TO TEACHERS

There is, perhaps, no group of birds more inaccessible for study by most teachers with their classes than the water-fowl. In the first place, bodies of water frequented by Ducks do not ordinarily lie close to the school, and, in the second place, the water-fowl are naturally so wary that they will not permit a close approach by a single individual, to say nothing of a large class. I do know, however, schools in central New York that can watch wild Ducks and

Geese from the school windows; there are many places where streams or marshes are within walking distance, and there is no school, wherever situated, that does not lie in the path of migrating water-fowl that can be seen passing over on suitable days.

It is on the bleak, stormy days of late October or early November, when the first ice forms or the first snow flies, that the largest number pass over to their more southern wintering-grounds. The days when other birds are conspicuous by their absence, when it seems impossible to awaken interest in anything out-of-doors, are the days of all days for studying water-fowl. And what a thrill it gives one, when he jumps a mud-puddle on his way to school or dodges a moisture-laden branch, to glance up and see a wedge of wild Geese heading for the south. He forgets the weather and excitedly scans the heavens for other Geese, perhaps to be rewarded by the sight of a band of Teal following the wake of the Geese, or even circling about them, their airy flight and rapidly beating wings in sharp contrast to the direct plodding of the Geese. Perhaps it is a flock of Black Ducks or Mallards that follows behind, or the air may be full of flocks of varying size and shape, all hastening in the same direction.

No birds are more conspicuous in their migrations than the water-fowl and there is never any question about what they are doing. One often sees flocks of Robins and Blackbirds and other small birds passing overhead or assembling at some common roost, but they never inspire one to wonder at bird-migrations as do the well-formed flocks of Ducks and Geese. The feeling is uppermost in one's mind which caused Bryant to query:

Whither midst falling dew
While glow the heavens with the last steps of day,
Far through their rosy depths
Dost thou pursue thy solitary way?

Ducks are so obviously bent on getting somewhere, looking neither to the right nor the left, that one just naturally asks, "Whither?"

When children report flocks of Ducks or Geese, it is the time of all times to start a discussion of bird-migration. It may well be that you cannot identify the species of Ducks that are migrating, but the great fact of migration stands out prominently. So bring up the matter of the departure of the birds in the fall, their return in the spring, and all the interesting facts that have been learned in recent years about the order and accuracy of their journeys, the distances traveled, and the guiding sense that directs them safely between their summer and winter homes.

FROM YOUNG OBSERVERS

A PARTRIDGE NEST

One day in the middle of May I went up to Sabago Lake with my two sisters and a friend. The drive up was lovely. We saw many birds but none out of the ordinary until we stopped the car and went into the woods looking for May-flowers. The deeper in we went the more beautiful were these flowers. When we were industriously picking some, we were startled by a great whirl of wings and we looked up in time to see a Partridge heading for a clump of tall pines not far away.

Thinking that there might be a nest somewhere about us, we began to search and soon discovered it under a small spruce tree. It contained a dozen eggs. The nest consisted of a few dried leaves, and the ground was hollowed out to fit the bird's body. The eggs were light brown, with a few darker spots. Fearing that we might scare the mother bird, we hastened away but were very pleased to see such a rare and beautiful sight.—JULIA LIBBY HOLT (age 12 years), *Portland, Maine*.

[The eggs of the Ruffed Grouse, or Partridge, are usually unspotted, but occasionally eggs that are lightly spotted with brown do occur.—A. A. A.]

AN INTERESTING HOLE

There is a hole in one of our big elm trees that has had some interesting experiences. It was made by a pair of Flickers that used it for their home last spring. After the eggs were laid and hatched, I saw the mother bringing ants and other insects to the baby birds.

When they were large enough to fly, they left this home and an Owl took possession. I often saw him put his head out of the hole and look about in the slow, innocent way that Owls have. I enjoyed watching him, but he stayed only about a month, after which the hole was left vacant for the rest of the season.

It was used again this spring by a pair of Flickers. I have often wondered if they were the same birds that made the hole. They did not seem to like their neighbor, a squirrel, that lived in the top of the same tree, as I often heard them scolding each other.

The eggs were laid, but before they were hatched, one of the birds was caught by a cat. I found its wings near the tree where it had been eaten. Its mate has probably left the nest as I have not seen it lately. I hope the hole will again be used by some other interesting birds.—HOBART BAIR (age 10 years, Grade 5), *Mount Vernon, Iowa*.

[Very often, when one of a pair of birds is killed, the survivor finds a new mate and continues possession of the same nest.—A. A. A.]

A PARROT'S NEST

My home is in Brazil, S. A., but I came to Mount Vernon, Iowa, to spend a few months.

One day, while I was in Brazil, I went for a walk in the woods. I saw a Parrot come out of a decayed stump about 6 feet from the ground. The stump was about 8 feet high. I climbed up until I could see in the nest. It was about 2 feet from the ground. There were three ugly little Parrots with crooked bills, and two little white eggs in the nest.

After some days I went back again and there were four young Parrots. Three days later I went back and there were five baby Parrots, all different sizes. The smallest one was about 1 inch long, and the largest was about 3 inches long.

Several days later I went again to the nest and found that the smallest one was killed. The others were so heavy and strong that he had been crushed under them.

Perhaps, after the mother hatches two or three eggs, she lays more, and then the young Parrots hatch them.—CARL MIDKIFF (age 11 years, Grade 5).

[Carl's suggestion that the young Parrots help hatch the eggs is ingenious, but we fear not probable.—A. A. A.]

ALBERTA AND ITS BIRDS

In the March-April number of BIRD-LORE I noticed some brief notes from a schoolboy living in Nobleford, Alberta, and beneath it several notes by the Editor. I have lived in Alberta since the age of four, and I am therefore in a position to speak on this subject.

Yes, Alberta is a prairie province. It is from these great prairies that much of the grain of the world comes. But do not let it be imagined that Alberta is all prairie. Only about one-third of it is really so. Of the rest a large amount is hill country, that is, rolling prairies, dotted here and there with clumps of brush. The banks of rivers in this district, however, have all the characteristics of the forest land. The remaining division is the forest country. I have spent some time in all these districts, but in my opinion the district around Edmonton is by far the most picturesque and contains a larger amount of natural history material than any other place. Unfortunately, I was there only for a short time and was thus unable to make a thorough study of the birds of that locality.

To begin with, let us take first the prairie district. It is natural enough to suppose that the birds will be mainly of the ground type—and so they are, although an occasional percher will wander in during migration. Probably the most important family of the district is that of the Longspurs. Their name has, no doubt, originated from the fact that the nail of the hind toe is very much extended. They are all here; the Lapland Longspur, the McCown Longspur,

the Smith Longspur, and the Chestnut-collared Longspur. They all build on the ground, and I have never been able to note any material difference in the construction of the nests. Neither can the eggs be well distinguished, all being more or less of a light gray with spots of darker here and there, the finishing touch being given by blotches, spots, and streaks of black, brown, and lavender. The Desert Horned Lark of these regions needs no long description, as it is very much the same as the Horned Lark of the eastern United States and Canada, except that it is much lighter and, if anything, a little larger.

Robins, Nuthatches, White-throated Sparrows, Crows, and Red-winged Blackbirds are occasionally seen. Blackbirds are common, and the birds of prey are represented by Swainson's Hawks, Sparrow Hawks, Cooper's Hawks, Acadian Owls and Snowy Owls, with an occasional Golden Eagle. Among the rarer birds of this district is the Harris's Sparrow, which I have observed only once.

Progressing northward about eighty miles, we come to the busy city of Calgary. Surely, you would say, this is no place to go to observe birds, but the forest-like regions along the Bow and Elbow rivers here have been a happy hunting-ground for me for several years.

The Horned Lark of the prairies is here, but the other forms of prairie bird-life are rare. The Bluebird is here; he is not the blue, brown, and white bird the Easterners know, but a faded, dingy gray-blue fellow whose blue only shows up well when he flies. There are plenty of Robins here and a large number of those bird-flutes, the Meadowlarks. The Duck family is represented by Mallards, Widgeons, Teals, and Mergansers, while Killdeer are abundant. Shallow pools in the middle of woods are the homes of many of the noisy Green Tatlers, Downy Woodpeckers, Red-shafted Flickers. The Hudsonian Chickadee, the Redpoll, the Bohemian Waxwing, and the Slate-colored Junco appear in the spring, while the summer finds such birds here as the Red-winged Blackbird, the Barn Swallow, the Cliff Swallow, the Bank Swallow, the Northern Shrike, the Catbird, and the Red-breasted Nuthatch. The Sharp-tailed Grouse furnishes fine game for the sportsman in this region. The Crow and the Magpie are quite common. The birds of prey are similar to those of the south country.

I have been informed that the Ruby-throated Hummingbird inhabits these parts, but I have never had the luck to see one myself. And, oh yes! we have that little rogue, the English Sparrow. There is one perched on my window as I write, chirping away loudly as if to say, "Don't you dare forget me."

Let us now examine the birds of Edmonton, which is situated on the edge of the forest-belt. As I stated before, I was not long enough in this district to study completely its birds, but they appeared to be very similar to the birds around Calgary, with several additions. There are plenty of Harris's Sparrows here, but I have been told that they seem to disappear in nesting season. Only one authentic nest has yet been discovered. The Hummingbird is here all right,

a little red and green whizzing bullet, and the Bohemian Waxwing nests in these regions.

I might add that the birds of Alberta can stand a lot of studying yet, and there is much work for a systematic, patient ornithologist. There is also much work for the Audubon Society here, for the Alberta farmer has not yet learned that the birds are worth more to him than cats, and that all Hawks do not kill his chickens.—LORES RUSSELL, *Calgary, Alberta*.

[Boys and girls will do well to get out their geographies when they read this and see what the country looks like on the map. Locate the places mentioned and try to determine why all of Alberta should not be alike.—A. A. A.]

NOTES ON THE BIRDS OF WASCO COUNTY, EASTERN OREGON

The part of Wasco County where we lived is rolling, dry-land wheat-farms, sage-brush, and rock-breakers. There is also one of the largest irrigated apple orchards of the world. Small streams run through the larger cañons, with a thick growth of underbrush in most places.

There is an abundance of Goldfinches along the streams, also Belted Kingfishers, Flickers, Downy Woodpeckers, Black-headed Grosbeaks, Orchard and Baltimore Orioles, Sparrow Hawks, Robins, Chickadees, Crows, Song Sparrows, Killdeer, and many others.

In the towns and around the farmhouses there are vast numbers of English Sparrows, and there are also Kingbirds, Western Bluebirds, Flycatchers, Robins, and several kinds of Sparrows.

Out in the fields and on the hills are our happy neighbors, the Meadowlarks, Burrowing Owls, and Horned Larks, which I took to be the prairie subspecies.

Along the creeks there is a Heron about the size of the Great Blue and about the same color, but the feathers of the head and neck lay flat and make them look bare.—OLIVER CRANDALL, (age 16), *Toppenish, Wash.*

[Bird-lovers in the East are always interested to hear what the common birds in the West are. It is the common birds that indicate what the country is like, not the rare one, and often the common birds are rare in other parts of the country. Boys and girls in the East would love to see a Black-headed Grosbeak or a Burrowing Owl.—A. A. A.]

OCTOBER 12 IN CHICAGO

In these days of expensive travel it isn't easy to wander very far afield for our nature-study. There are lots of nice things to do at home, however, and any number of interesting things to see. I am sure you will think so too when I tell you what my 'littlest' boy and I saw today in our own back yard, or, as we prefer to call it, our garden.

Not many feet from us is a public garage, and all around us many large apartment buildings, yet this morning we spent all our spare minutes watch-

ing the birds which are going south for the winter, and which love to stop, on their way and hop in and out of our shrubbery.

We first saw a whole flock of White-throated Sparrows. They looked very sleek and fine after their summer in the north woods. They hopped over the grass and diligently ate the fine harvest of seeds and insects that they found in the garden, every now and then saying *tseep, tseep*. Perhaps they were talking about the long cold winter days that were coming, when they would have a nice coat of fat to keep them from shivering.

Strutting in and out of the shrubbery and quickly dodging out of sight at every sound was a cunning Oven-bird. It looked like a tiny little hen, as it scratched in the fallen leaves, or strutted along, its striped head nodding as it walked.

A Golden-crowned Kinglet hopped and flew from branch to branch of a lilac bush close to my kitchen window, while an agile little Brown Creeper ran up the trunk of a tree not three feet away from us. A Brown Thrush, with a plump, spotted breast, hopped in and out beneath the shrubs and drank from the bird-bath that we keep filled with water for our active little visitors.

So, you see, though far from the woods and fields, even in a prosaic city like Chicago, there are hosts of interesting things to see, if your eyes are only bright enough.—ELIZABETH P. BOWERS, 5420 Kimbuck Avenue, Chicago, Ill.

[Those of us who live in large cities are apt to envy our country cousins and their opportunities for observing birds, but Miss Powers shows us how, even in the largest cities, there are birds to see if our eyes are sharp and if we know when and where to look.—A. A. A.]

A SCARLET TANAGER FAMILY

I am an interested reader of your magazine which I have subscribed to for a long time. I was much interested in the account of the Scarlet Tanager which was in the July-August number of BIRD-LORE.

One day while I was sitting upon a large rock beneath an oak tree, I saw the bright red plumage of the Scarlet Tanager flash in the hot sun. A moment later he was joined by his olive-drab mate and I at once suspected a nest somewhere. After searching the branches of the oak I discerned a crude structure of twigs on the center of a limb about 30 feet from the ground. I cautiously climbed the tree and upon reaching the required height, I saw that the flimsy appearing nest contained four fluffy, large-mouthed babies.

The next day I climbed the tree and made myself comfortable upon the same limb which held the nest and about five feet from it. The parents were at first shy and the female would jump from twig to twig till she reached the nest where she would feed the gaping mouths and fly away hurriedly. Later she came directly to the nest where I could see the whole process of feeding. These bold actions induced the male to come cautiously to the nest. At times both adults came to the nest at once and a little squabble ensued which ended

by each sitting opposite the other upon the nest. Owing to the poor conditions I could not photograph the little family and so had to be content with the picture left in my mind which I shall never forget.

We have here Chestnut-sided, Black and White, Yellow and Hooded Warblers, Maryland Yellow-throats, Thrushes, Chewinks, Vireos, Quail, Pheasants, an occasional Partridge and of course all the common birds.

Wishing your magazine further success.—PAUL CURTIS, (age 12 years), *Wellesley Hills, Mass.*

[This is the way to become familiar with birds. The Scarlet Tanager is more than a name or a flash of color to Paul since this experience.—A. A. A.]

OUR PET BIRDS

This summer near our house two Robins built their nest in a crab-apple tree. When nearly full grown two of the baby birds fell out of their nest. We put them back again but they continued to fall out. So my sister and I each took a bird and fed it. When we went on a picnic we took them with us and while we went fishing my mother fed them. When we went to town they went along. We fed them about every ten minutes. We fed them on worms with occasionally a bug. Several times they hopped away but we found them again. One evening they started to fly a little and the next night while they were in the box they slept in, the mother bird got them away for good. We had fed and played with them for a week.—STIRLING DICKINSON (age 11 years).

[If everyone who tries to care for young birds that have fallen from the nest will be as faithful as Stirling and his sister, the well-meant intentions will be equally successful. Too often the 'Good Samaritan' does not realize the amount of food required by the foundling and a tragedy results.—A. A. A.]

BIRD LIFE AT BIRD'S INN

The birds in this locality are becoming more numerous every year. We have had a feeding station in our yard for several years, which seems to have had a great influence; those visiting the station most regularly are the Blue Jay, Cardinal, Downy Woodpecker, Hairy Woodpecker, Nuthatch, Robin, Song Sparrow, and English Sparrow.

As we are only a square from the city limits, Quails are beginning to frequent our chicken-yard in winter, although we keep feeding-stations for them out in the fields and woods at 'Squirrel's Inn,' my aunt's estate across the street from us. The Pheasants have roosted in our fruit trees and those of our neighbor numerous times this winter.

A neighbor of ours has a wild female Pheasant which came to them during the hunting season, its mate probably having been shot. At first

it would come for something to eat, then disappear, but now it eats and roosts with the chickens. Every morning it comes to the back door and chirps till some one comes out and talks to it. The Quails are so tame that one is able to approach within 3 feet of a whole covey.—KATHARINE R. MENKE, *Greenville, Ohio*.

"IT PAYS TO ADVERTISE"

For Rent, Wren House. A roomy bungalow for a pair of young wrens located a little way from the house. Vine-covered, easily cleaned and ventilated Waterproof; hole the size of a quarter and five inches from the floor. Built of durable wood and guaranteed to last a long time in any kind of weather. Pleasantly situated in Virginia three miles directly west of Mount Vernon, near a white farmhouse on a hill. Farmer's daughter keeps a cafeteria for any honest bird that wants food and drink. Open all hours. Terms: Birds must help in the garden by eating bugs and worms. Any bird caught quarreling with another bird or squirrel will be put out immediately. Apply to WHITE HOUSE FARM, VA. (Theda Sherman).

A BIRD TRAGEDY

The rain came down in torrents, drowning out all other sounds. It had been storming for nearly half an hour, when suddenly came a blinding flash of lightning, a terrible crash of thunder, a moment of silence, and the thunder rumbled away into the distance.

Mother, my sister, and I were all alone on this stormy evening. We hurried to the window to see if the barn had been struck. One glance proved that it was not the barn, but a large tree in the orchard, the one with the Flicker's nest!

To me the Flicker has always seemed out of place. He would fit better in a fairy story. Before we knew his name, we called him 'the golden-winged bird.'

The rain soon stopped and the sun came out from behind the clouds low in the west, giving a golden tint to all of the fresh earth. I ran to the tree in the orchard. At the sight of it, I stopped suddenly. The tree was broken at the Flicker's hole, and the mother bird lay there motionless. The way I felt I'll never forget. She was wedged in so tight I could not get to her. But with a neighbor boy's help, I managed to pull the bark away and lifted her out. Her eggs were broken, but her body was still warm, and I could not believe she was dead.

When I carried her to the house, mother said she was lifeless, but I was positive I felt her heart beating. All night long I held her in my hands, hoping she would revive. But morning brought the truth.

A tiny grave under the apple tree and a golden wing among my choicest possessions are all that mark the memory of that stormy evening.—VIRGINIA JUNE RATLIFF (age 14 years), *Dover, Del.*

[When we remember how many trees are struck by lightning, it is probable that tragedies similar to the one here so well described are more frequent than we realize.—A. A. A.]



COMMON TERN
Photographed by F. N. Wilson

HERONS OF THE UNITED STATES

By T. GILBERT PEARSON

The National Association of Audubon Societies

BULLETIN NO. 5 (PART IV)

LITTLE GREEN HERON (*Butorides virescens virescens*)

DESCRIPTION.—The feathers of the back and wing-coverts, although tinged more or less with bluish gray, show much green, which has been the cause of giving this bird the name Little Green Heron. The chestnut color of the neck and sides of the head is very noticeable. There is a white streak running down the throat. The legs and feet are yellow. On the top of the head we again find green, here in the form of greenish black.

The above description, especially when taken in connection with the accompanying picture (Plate 4, No. 1) should be sufficient for identifying a specimen. Inexperienced students have sometimes confused this species with the Least Bittern, to which there is a certain slight similarity of appearance. There is, however, a decided difference in the size of the birds, the Little Green Heron being much larger. The length of a typical specimen from bill-tip to tail-tip is 17 inches, although individuals may be found that vary an inch one way or the other. The expanse of the wings between their tips is usually about 25 inches. The bill is $2\frac{1}{2}$ inches in length.

Two sub-species of the Little Green Heron are recognized; one, Frazar's Green Heron (*Butorides virescens frazari*), described by William Brewster, from Lower California; and Anthony's Green Heron (*Butorides virescens anthonyi*), found in the arid regions of southwestern United States, ranging also from Yreka, California on the north to southern Mexico. Both of the above-mentioned birds are extremely similar to the common Little Green Heron; Anthony's, for example, being simply a paler desert form of the eastern bird.

RANGE.—Little Green Herons breed from Nova Scotia, southern Ontario and Wisconsin southward to the West Indies. They are migratory and pass the winter in the West Indies and southward, rarely any of them remaining within the borders of the United States.

GENERAL NOTES.—This, the smallest of the sub-family of True Herons found in the United States is perhaps more frequently met with than any of the nearly related forms. The bird frequents the borders of ponds, reedy lakes, brackish water-marshes, mill-ponds, and streams that wind their way through farm lands. Perched on a submerged log or twig just over the water, or wading in the shallows the bird seeks its prey. When discovered it may momentarily regard the intruder with raised crest and then with rapid flapping of the wings depart to a more quiet region. Sometimes these flights are prolonged across fields or marshes, but other times the bird will go only a few rods before again

seeking cover. When taking flight it usually emits one or more startled cries and if one pursues his observations very far he is sure to hear the bird employ under different conditions the various notes of its repertoire.

Farm boys throughout the land generally know this bird, frequently under such titles as 'Shite-poke,' 'Fly-up-the-Creek,' or 'Indian Hen.'

The nest is a platform of twigs frequently so loosely constructed that one may see the blue of the eggs from below. Horizontal limbs, hanging but a few feet above the creek- or river-bank are often selected as nesting-sites. Passing through the canals of the great Louisiana marshes one may startle the birds from the bushes growing on the canal-banks. I have seen their nests at considerable distances from any water where they have been built in oak, cedar, apple or other trees. The eggs are generally four or five in number and have the bluish-green color so characteristic of the eggs of the Heron family. Many times solitary nests are found with no other birds breeding in the immediate neighborhood. Again small colonies numbering perhaps six or eight pairs will be discovered. Among the Heron rookeries it is not uncommon to find several Little Green Heron nests.

The food of this species consists of minnows, frogs, water-insects of various kinds, and doubtless at times young water-snakes.

It is protected by state and federal laws, within the United States. Occasionally one hears complaints of their depredations to trout-fry at fish-hatcheries. These do not appear to be very numerous and where one of the birds becomes addicted to such habits the manager of the hatchery may usually get a special dispensation for removing the annoyance.

LEAST BITTERN (*Ixobrychus exilis*)

DESCRIPTION.—The feathered covering of the Least Bittern is indeed a coat of many colors. The neck is chestnut-rufous, particularly dark on the back. There is rufous on the wings and a general buffy color beneath. In the male the top of the head, as well as the back and tail are shiny black. On the female the black of the back is covered with a thin washing of chestnut, and the under parts are a little darker. The drawing by Fuertes (Plate 4, No. 2) will give a good idea of the colors of the bird as it appears while perched and at rest. It is four inches shorter than the preceding species, measuring about 13 inches from bill-tip to tail-tip. The bill is a little less than 2 inches in length.

RANGE.—The general range of the Least Bittern may be said to cover temperate North America and the northern part of South America. It breeds in Nova Scotia and westward as far as Saskatchewan. From here the range extends southward to the West Indies and Brazil. In winter it may be looked for in the United States only in Florida or in those states bordering on the Gulf of Mexico. The great majority of these birds depart in autumn for more

tropical regions. In spring they usually arrive on their nesting-grounds during March or April and nest-building is soon afterwards started.

GENERAL NOTES.—The Least Bittern is an inhabitant of marshes. I do not recall ever having seen one very far in a wooded swamp. Where the Rail hides and the Red-wing sings you may look for this diminutive representative of the great Heron tribe. Some of its movements are very odd and when seen for the first time often impress one strangely. For example, when the bird is startled from its haunts in the marsh grass or rushes, it often departs in the most awkward manner. Apparently it flies with the greatest effort and its legs dangle in an ungainly manner. One may even think he has flushed a young bird as yet inexperienced with aerial navigation, but if the flight is prolonged it soon draws in its legs and, as though gaining confidence in its ability to fly, will wing its way with great swiftness across lake or marsh-land.

The nest is made among the reeds or in bushes growing in the water. Sometimes twigs are used in the construction of the cradle for its young. Often blades of marsh grass, or leaves of the rushes are employed. The completed structure is much more substantial in some cases than in others. This variance in nest-construction, by the way, is not confined by any means to the bird under discussion. The eggs are generally four or five in number, elliptical in shape and are very pale blue in color.

Least Bitterns are not noisy birds, a low cooing cry being the one sound generally heard, if indeed any note at all catches the ear. When startled, but not suspecting it is seen, it will at times assume a perfectly rigid position with bill pointing almost directly upward. The light streaked appearance of the throat causes it to blend closely with its usual surroundings of marsh grass or rushes. In this position it is generally well hidden. The young in the nest will often rise and stand thus like four little grotesque statues until the observer has passed on.

The food consists of such small animal life as it can catch easily while clinging to the reeds growing in the water. Like the Rail, the Least Bittern can compress its body until it can pass through astonishingly small cracks, which must be a very great advantage to a bird whose life must be passed working its way through thick tangles of wild marsh growth. It is accustomed to progress by grasping the stems of the rushes with its long flexible toes, as it moves along.

CORY'S LEAST BITTERN (*Ixobrychus neoxenus*)

DESCRIPTION.—This bird described by Cory is very similar to the Least Bittern. In fact it might almost be described as simply a color phase of that species. As will be seen in the drawing (Plate 4, No. 3) it is much darker in general appearance, the details of which one may readily ascertain by comparing the birds as illustrated.

RANGE.—Not very much is known about the range of the Cory's Least

Bittern. It has been known to breed in south Florida and in Ontario. There are records of its appearance in Massachusetts, Michigan, Wisconsin and elsewhere.

BITTERN (*Botaurus lentiginosus*)

DESCRIPTION.—The general appearance of this species is that of a large brown bird which on closer inspection seems to be streaked with white on the breast and to some extent the sides and back. Even the black area on the sides of the neck assumes the form of streaks. On the back of the neck the dominating color is bluish slate with much buff on the back and wings. The legs are green. From the bill-tip to tail-tip the Bittern measures about 28 inches. The bill is 3 inches in length.

RANGE.—The Bittern breeds from central British Columbia eastward to Newfoundland and south to California, Arizona, Kansas, the Ohio Valley and perhaps North Carolina. It has been found wintering in many of the southern states, as for example, California, Arizona, Texas, the Ohio Valley and from Virginia southward. Many go to Cuba; others to Guatemala.

GENERAL NOTES.—Inexperienced nature students have often confused this large Bittern with the Black-crowned Night Heron. There is a similarity in size, feeding-haunts, and to a less extent in flight, but the colors are notably different if one is close enough to the birds to discern their markings.

The home of the Bittern is in the marshes. I have never seen one perched in a tree. One of its striking characteristics is the thundering boom which the male produces during the mating- and nesting-season. It is a most astonishing sound and extremely hard to locate. One may work his boat through winding marsh creeks or leave it and wade over long stretches before finding the creature that produces the sound that so strangely attracts him. It has been likened to the distant bellowing of a bull. To my mind it is more like the deep tones of an intermittent fog-horn. Some have described the note as similar to the sound of driving a stake into a bog; others to the working of an old-fashioned wooden pump. In fact one of the names by which it is known is 'Thunder Pumper.'

The nest is built in a marsh of such material as may readily be gathered near at hand, and here the three to five dull olive, buff eggs are laid.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by T. GILBERT PEARSON, President

Address all correspondence, and send all remittances, for dues and contributions, to the National Association of Audubon Societies, 1974 Broadway, New York City.
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Any person, club, school or company in sympathy with the objects of this Association may become a member of it, and all are welcome.

Classes of Membership in the National Association of Audubon Societies for the Protection of Wild Birds and Animals:

\$5 annually pays for a Sustaining Membership
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\$1,000 constitutes a person a Patron
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FORM OF BEQUEST:—I do hereby give and bequeath to the National Association of Audubon Societies for the Protection of Wild Birds and Animals (Incorporated), of the City of New York.

NOTICE OF ANNUAL MEETING

The nineteenth annual meeting of the National Association of Audubon Societies for the Protection of Wild Birds and Animals, will be held on October 30, 1923, in the American Museum of Natural History, New York City, at 10 o'clock A.M.

General matters in connection with the year's work will be presented in the form of reports from the President and Treasurer. Field agents of the Association and delegates

from affiliated organizations will be heard.

Luncheon will be served to members and delegates and in the afternoon a conference of workers and others will convene.

A public meeting, with addresses illustrated with slides and motion pictures, will be held at 8 P.M. on the preceding evening, October 29, in the large lecture hall of the Museum. The public is cordially invited to attend all sessions.

MEMORIAL TO W. H. HUDSON

W. H. Hudson, who died in England during the month of August, 1922, was one of the most charming writers on natural history the world has yet produced. Where in all literature of the subject can one find a more delightful and captivating volume than his book, 'Long Ago and Far Away,' in which he so charmingly presents the impressive lessons of natural history he learned as a child on the pampas of South America?

Thousands have read with eagerness his last book, 'A Hind in Richmond Park,' so recently issued.

Most fitting is the movement now on foot in England to erect a proper memorial to the

memory of the gentle and spiritually minded Hudson who did so much to arouse a deep appreciation on the part of mankind for the beauty of the world in which we live. It is proposed to erect a drinking- and bathing-fountain for birds, if possible in connection with 'a Hudson Bird Sanctuary' in one of the London parks.

The following Committee of prominent English people have this matter in charge: Cunninghame Graham (Chairman), Viscountess Grey, Muirhead Bone, J. M. Dent, Gerald Duckworth, Miss Linda Gardiner, Edward Garnett, Holbrook Jackson, Mrs. Reginald McKenna, H. J. Massingham.

Hugh Dent, Hon. Treasurer, and Mrs. Frank E. Lemon, Hon. Secretary.

Hudson's numerous books were so extensively read in the United States that many of us feel we have almost as much claim on him as do our friends across the sea, and I believe there are various members of this

Association who might like to contribute to this very beautiful testimonial which it is planned to erect. Those desiring to do so may send their gifts to the National Association of Audubon Societies, 1974 Broadway, New York City, where receipt will be given and the funds transferred to England.

THE PARIS CONVENTION

The International Convention for the Consideration of National Monuments and Wild-Life Sanctuaries was held in Paris, May 31-June 3 (inclusive), 1923.

The Convention was called and held under the auspices of the Société Nationale d'Acclimatation de France, the Société pour la Protection des Paysages de France, and the Ligue Française pour la Protection des Oiseaux. Meetings were held under the presidency of M. Louis Mangin. The Secretary was M. R. de Clermont. Representatives were present from many European countries, and at the sessions presented a long series of papers on an interesting variety of subjects. Various social functions were held in connection with the Convention, including a dinner given by M. Jean Delacour, President of the Ligue Française pour la Protection des Oiseaux, and the presiding officer over one of the sections of the Convention.

The President of the National Association of Audubon Societies had the pleasure of attending this Convention and spoke on the subject of bird reservations and sanctuaries in the United States. Moving pictures made by William L. Finley and Norman McClinck, showing bird life on some of the United States Government and Audubon Society reservations, were shown and seemed to arouse much interest.

The following resolutions, prepared by the writer, were introduced after receiving the

endorsement of those members of the International Committee for Bird-Protection who were present from France, Holland, and England.

Resolution No. 1

We deplore the fact that in many countries there exists as yet no complete system of laws for the protection of those species of insect-eating birds which are of such small size as to be of little value for human food, and yet are of great economic importance to the agricultural and horticultural interests of mankind. We respectfully urge that such countries enact laws for the protection of this class of birds.

Resolution No. 2

Realizing the fact that the feathers of wild birds used in the millinery trade, especially those of the Egret, Crowned Pigeon, and Birds-of-Paradise, come almost entirely from birds killed for this one purpose, and that such practice is not only inhumane, but has already resulted in the extermination of certain species over parts of their range, be it

Resolved, That this Convention urges all nations that have not already taken such action to prohibit the killing, export, import, and sale of the feathers of wild birds, not including the Ostrich or game-birds reared on preserves for the sport of shooting.

Both resolutions were adopted.

It was interesting to note that a large number of representatives of the millinery trade of Paris continually attended the sessions of the Section at which were presented the different papers on bird-protection.

SAVE SOME OF THE MARSHES FOR WILD LIFE

The Mississippi River Valley has long been recognized as one of the chief migratory highways for water-fowl. From the Far North, Wild Ducks and Geese annually pass down the river, seeking their winter quarters

along the Gulf Coast of the United States and Mexico. By the same route, many return in the spring. One reason for the great popularity of this line of travel lies in the fact that along great stretches of the



DAVID D. DAVIS, OF WILTON, N. H.

A friend of the birds and a member of the National Association of Audubon Societies, who died in August, 1922
Under a provision of his will the Association has received a legacy of \$15,000

river there extends a series of marshes, swamps, and shallow ponds where water-fowl may pause for rest and food. With the more complete occupation of arable lands, agricultural interests have in recent years gone extensively into the project of draining swamps and marsh-lands in order that these areas may be converted into fields for the raising of crops. As a result, the wild-fowl feeding-grounds in many regions have been destroyed, and particularly is this more and more coming to pass in the territory just mentioned.

The past spring the writer traveled through much of southern Florida and was appalled at the changes which civilization is so rapidly producing in this last wilderness in our southern country. Many hundreds of thousands of acres in the Everglades territory have been drained since his last visit. Steam dredges were busy cutting their way into some of the more sequestered lakes, and the vast marshes are giving up their waters. Even on the southern Kissimmee prairies and in the semi-barren country lying north and east of Lake Okeechobee, one may see long canals everywhere crossing the country. This condition exists from the southern reaches of the Kissimmee River to the Atlantic Coast. Over immense areas where in days gone by I had seen myriads of wild fowl, today there is no place for them. The

marshes are being turned into fields. Thus does civilization in its march destroy the haunts of the wild life in the wilderness.

No wonder, therefore, that those interested in wild-bird protection are looking askance at the increased number of drainage projects which are destroying important haunts of wild fowl. Many voices are heard crying out that at least some places be preserved where migratory water-fowl may find food and shelter. To take up the task of purchasing and preserving such areas we must look to the United States Government.

Here is one of the more urgent reasons why those interested in conservation should energetically support the Game Refuge Bill which will again be introduced into Congress this fall. Should this bill become a law it is estimated that perhaps a million dollars annually will become available for this purpose.

The Izaak Walton League, an organization interested in wild-life protection, and especially in preserving game- and food-fishes, is now adding its efforts to those of others to preserve the marsh-lands. In seeking to check the drainage of the Winneshiek bottom lands, which lie along the Upper Mississippi River, between Lynxville and De Soto, Wis., it is calling upon its members and friends to file protests with President Coolidge.

THE FLORIDA LAW REQUIRING BIRD-STUDY IN THE SCHOOLS

Although Mrs. Katharine Tippetts, President of the Florida Audubon Society, failed to get her State Game Commission Bill passed at the last session of the Legislature, she can well be congratulated on the successful passage of the law requiring bird-study in the schools of that state. Mrs. Tippetts was in no small part responsible for the passage of this measure. As a matter of record, and also of interest to the workers in other states, this entire law is herewith given:

Chapter 9142 (No. 24)

An Act to Provide a Course in the Public Schools of this State Relative to the Protection of Birds and Animals.

Be it Enacted by the Legislature of the State of Florida:

Section 1. Be it enacted: that for the purpose of lessening crime, and raising the standard of good citizenship, and inculcating the spirit of humanity, such humane education shall be given in public schools of this State as shall include the kind and just treatment of horses, dogs, cats, birds, and all other animals.

Section 2. In every public school within this State not less than one-half hour of each week during the whole of each term of school shall be devoted to teaching the pupils thereof of kindness and justice to, and humane treatment and protection of animals and birds and the important part they fulfil in the economy of nature. It shall be optional with the teacher whether it shall be a consecutive

half-hour or divided into shorter periods through the week, or whether such teaching shall be through humane reading, stories, narratives of daily incidents, or illustrations taken from personal experiences. The instruction shall be part of the curriculum of study in all the public schools of the State.

Section 3. The principal or teacher of every

school shall certify in his or her reports that such instruction has been given in the school under his or her control.

Section 4. All laws and parts of laws in conflict with the provisions of this Act are hereby repealed.

Section 5. This Act shall take effect upon its becoming a law.

Approved June 7, 1923.

MORE BIRD SANCTUARIES

The following paragraph taken from a recent issue of *The American Field* is but another demonstration of the rapidly growing interest in wild-life sanctuaries:

The extensive areas of unoccupied land connected with the du Pont explosives plants in the United States, amounting to 36,344 acres, are to be used as sanctuaries where game and insectivorous birds will be protected. The Sporting Powder Division of the Company stated recently that this step was being taken in connection with its plans for the better preservation of game. Several

of the plants have already been stocked and the game has multiplied and been protected to such an extent that it is supplying the surrounding country. The reservations of plants to be used for the purpose are located in the states of Pennsylvania, Colorado, Alabama, Washington, Iowa, West Virginia, Minnesota, New Jersey, Missouri, Wisconsin, and Montana. Many of the reservations are heavily wooded and particularly adapted for the purpose. There are twenty-four in all, and the ground about them available for game preservation purposes ranges from 6,000 acres down to the average-sized farm.

THE IMPERILLED HEATH HEN

By HERBERT K. JOB

To secure a motion-picture film of the vanishing Heath Hen, on Martha's Vineyard, Mass., for the National Association of Audubon Societies, before the race might become extinct, I was at the State Reservation there from May 15 to May 22, inclusive, by the courtesy of the State Board of Fisheries and Game and the kindness of Superintendent Allan Keniston and Mrs. Keniston. Space is lacking to describe the trip and the habits of the birds, and only suffices for a brief summary.

The present facts are that the Heath Hen is on the very verge of extinction, and it may be too late to restore it, though there is still just a fighting chance. In the past two or three years, despite heroic efforts and considerable expenditure, decrease has been constant and rapid. A census the past spring revealed but twenty-nine birds. Later a few more were counted by Mr. Keniston, but it seems clear that there are less than fifty surviving birds, and nearly all these are males. It was feared that there were no females left. Prof. Alfred O. Gross, of Bowdoin College,

Maine, has been making intensive studies on the grounds and later will publish the results in full. In the nesting-time this season he secured a trained hunting-dog, and beat the oak scrub habitat for 50 miles, without finding a single female, nest, or brood. Later, in July, two females were seen, one with four young, the other with two only. Hawks, especially the Marsh Hawk, prove very destructive, and it is more than likely that they will capture these few survivors.

Forest fires, vermin, and one other cause seem to be their undoing. This last is the great excess of males, due doubtless to the destruction by the fires of the close-sitting females. The contention of many males for each female is believed to prevent successful breeding. The plan has, therefore, been undertaken by the state authorities to trap these excess males, in order to give the few remaining hens a chance. A beginning was made this spring with the trapping of six birds, all of which proved to be males, and larger results can be looked for the coming winter. However, when a species is so near



A MALE FLICKER
From drawing by Robert J. Sim

the vanishing point, it is dubious if any measures can prove effective, though no possible efforts should be neglected.

The increase of visitors seemed to have frightened the band, consisting only of males, from their chief 'dance' ground on the reservation, so in our efforts to secure photographs of the birds in nature we had to relocate them and build a new blind. There were but seven males left here, instead of

more than seventy, two or three years ago, and not a female was discovered. These were more shy than before, but, after some mornings of fog and rain, the daily vigils, beginning soon after 3 A.M., and ending at 6 to 6.30 with the departure of the birds, resulted in some success, and a reel of motion pictures were secured, which the National Association has added to its film library to preserve for posterity.

NEW LIFE MEMBERS

Enrolled from July 1, 1923 to September 1, 1923

Frick, Mrs. Childs
Morgan, Mrs. Gerald
Smith, Howard
Stout, Andrew V.

Tyler, Miss Mary Graham
Walker, Miss Lydia M.
Wittmer, Henry

NEW SUSTAINING MEMBERS

Enrolled from July 1, 1923 to September 1, 1923

Adelberg, Joseph E., Jr.
Alling, Clarence E.
Ard, Dr. Frank C.
Arnold, Miss Mary
Atkins, Frederick L.
Ayres, Douglas, Jr.
Baer, Miss Myrtle W.
Ballman, Mrs. Ed.
Banks, Mrs. Theodore H.
Beardsley, Sterling S.
Beatty, W. Gedney
Becker, Mrs. Martha G. A.
Belling, Miss Hannah S.
Benedict, Elliot S.
Best, Mrs. E. H.
Best, Dr. F. W.
Blanchard, Miss Victorine
Bobbs, J.
Brandt, Herbert W.
Brinckerhoff, Miss Jeanette
Bunker, William
Bunnell, Mrs. Walter L.
Byron, Lewis T., Jr.
Cheney, Geo. L.
Cheney, Mrs. Geo. L.
Cheney, Paul H.
Clark, Miss Maud S.
Cochran, Dr. Geo. G., Jr.
Cook, Mrs. H. M.
Dole, Elwyn H.
Dunn, John Randall
Findlay, Miss Mary
Forman, Miss Elizabeth M.
Fralick, Miss Orpha
Gildehaus, H. W.
Gordon, Mrs. Vivian

Gunari, A. P.
Haas, Miss Gertrude
Haldanewyse, Sidney
Hambleton, T. Edward, Jr.
Hassam, Childe
Henkel, Miss Bertha
Holman, John P.
Holton, Miss Louisa S.
Hopkins, Mrs. Geo. B.
Huber, Mrs. Charles Willing
Jones, Mrs. Nellie V.
Kamper, John E.
Keech, Mrs. Frank B.
Keller, Carl T.
Kepner, C. M.
Kepner, Mrs. C. M.
Kimber, Mrs. T. William
Knowles, Mrs. Edwin C. F.
Kohler, Louis S.
Kuehnle, C. Albert
Kuemmerle, G. C.
Lester, Mrs. Joseph H.
Ludington, C. T.
Lynch, Miss Annie F.
McCartee, Mrs. Peter
McCormick, W. H., Jr.
McCreary, Mrs. George D.
McGraw, Stanley D.
McIntosh, Mrs. F. G.
McKinney, Hayes
Masson, John G.
Mellard, Samuel
Mershon, R. H.
Meyer, Schuyler M.
Mitchell, J. F. B.
Mitchell, Mrs. J. P.

NEW SUSTAINING MEMBERS, continued

Morlin, Mrs. W. Brown	Smale, Mrs. A. K.
Newton, F. Maurice	Small, Herbert
North, Miss Betty L.	Smith, Miss Charlotte Curtis
Noyes, Mrs. H. F.	Smyth, David W.
Nye, Robert N.	Stark, James H.
Pack, Mrs. Arthur Newton	Stein, John Bethune
Pleasant, Miss Nellie K.	Stout, Mrs. Andrew V.
Rawson, Charles I.	Stratton, Dr. R. T.
Reyburn, Mrs. John R.	Strongman, Mrs. J. H.
Rhodes, Chas. O.	Sturges, Miss Elizabeth M.
Rich, Waldo L.	Sturges, Miss Susan M.
Rippel, Albert A.	Tandy, Frank N.
Rogers, William B.	Taylor, Mrs. Charles G.
Roosevelt, W. Emlen	Townsend, R. Elmer
Ruddy, Joseph	Vail, Mrs. Carl M.
Saginaw Br. Amer. Ass'n of Univ. Women (Mich.)	Van Cortlandt, Miss Anne S.
Samuels, Mitchell	Vanderlip, F. A.
Satterlee, Miss Eleanor M.	Vaughan, Henry G.
Saunders, Mrs. E. J.	Walbridge, Miss Caroline C.
Seymour, W. B.	Walsh, Miss Maria T.
Shattuck, Frank G.	Weisenburg, Dr. T. H.
Sherriff, John C.	Wilson, Dr. Frank N.
Shryman, Dr. Ferdinand	Wilson, Gaines R.
Simpson, Thomas Robinson	Wilson, Mrs. Lydia M.
	Wilson, Philip S.





1. AUDUBON'S ORIOLE, ADULT MALE

2. SCOTT'S ORIOLE, ADULT MALE

3. SCOTT'S ORIOLE, IMMATURE MALE

4. SCOTT'S ORIOLE, FEMALE

Bird-Lore

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Stories from Birdcraft Sanctuary

By MABEL OSGOOD WRIGHT

V. HERE AND THERE BETWEEN SEASONS

THERE is always a rush during the seasons of migration lest something should slip by unseen. In the nesting-time there is also a bit of anxiety and watching. Watching for new records, to see that the old have been maintained. Watching to help keep the balance and suppress vendettas between species, a responsibility forced upon those who, by playing hosts in a Bird Sanctuary, are in honor bound to look after the welfare of their guests.

Jays and Crows are by no means the only peace disturbers for their shameless cousins are easily detected. House Wrens have brain-storms that cause them to break up Bluebird homes, the second or later broods in particular being victims. Starlings have "it in for" Flickers, in spite of the superior size and forceful bill of the latter. While Sparrow Hawks and little Screech Owls, that are so fascinating when perching on a pine branch, silhouetted against a full moon, in spite of good marks to their credit, must be outwitted and urged to shift their lodgings by fair means or foul.

So it has come about that the 'between seasons' of the bird-year, when its life runs slowly, so to speak, are the most restful, and the chance happenings are intensely interesting to me, at least, for they may be studied in full relation to the surroundings.

Late last summer there was brought in a young Hawk with a crippled wing. It was found to be a young Sparrow Hawk of the year. It was very hungry, and though not permanently injured, had the primaries of one wing bent in, an impediment to sure flight and a malformation that prevented the swift launching of itself on its prey. A meal of Starling or English Sparrow from the never wholly empty trap, made the youngster consider the location suitable for residence and he proceeded to settle down, roosting in the grape-vines of the workshop, under the porch, or on the hammock ropes, the latter being a favorite day perch. It seemed almost that he enjoyed the company of the warden's children instead of being afraid of them.

In a few weeks, he had learned to beg, or rather insinuate that he needed food, in the most courteous way. Sometimes coming out of shelter to perch on one of the posts of the fence near the Museum and greeting the visitor with open beak and slightly raised wings, in this way adding to the interest of the mounted exhibits of the Museum.

But—there is usually a *but* to the success of everything out of its native element—a Sparrow Hawk does not belong in a sanctuary of lesser kin, and these kin soon not only said, but acted, a little drama of 'either *you* go or *we* do!'

The leaves were growing thin, even on the hillsides where the small-leaved catbrier is so tenacious in its glowing rivalry of the crimson sumach pyramids. The feeding-trays were temptingly filled with food, ranging from chick-feed up to the fat seed of sunflower.

November came in. Suet bulged deliciously from various wire holders but the supply, strangely, did not diminish. A few migrants stopped but were extra shy and the usual late October throng of Juncos and Purple Finches were absent and those birds that did come snatched a bite and skittled suddenly to cover. Why? Though his wing now wholly usable, he never made an attempt to take a bird in his well-fed content, yet the Sparrow Hawk



THE WOOD DUCKS' POND

sitting sunning himself on either fence-post or seat-back was an alien enemy, and the small birds were taking no chances. As Birdcraft Sanctuary was intended for a refuge, but not a racial bird smelting-pot, the warden removed the little Hawk to a place where I can truly say "he lived happy ever after." For, in the most beautiful park of the nearby 'Park City' wild things are a part of the development. Instead, however, of putting this bird, self-adapted to human society, in a cage, he lives a life of liberty, plenty and companionship with the gardener in one of the greenhouses. *Then*, in the twinkle of an eye, the winter birds emerged from cover and in some way signalled to others,



DOROTHY AND THE SPARROW HAWK

so that the late dawn again was voiced by trillings and half-musical calls and the sun shone on the rosy glow of Purple (miscalled) Finches settling thick on the sunflower seed.

The English Pheasants of the Sanctuary come and go, the stock having been first established by means of a pinioned pair; no further effort has been made to restrain them. This prevents inbreeding and each year a certain number of young furnish interest. It is a study in itself to fathom why certain broods, on leaving their mother's care, become quite tame, while others, in similar surroundings, remain even more furtive than a covey of Bob-whites. This is a 'shy' year, but two seasons ago the young Pheasants walked about the trails in a most nonchalant manner and followed the warden quite to the gate of the enclosure, feeding readily from his hand. Be it here said that no attempt at artificial or special training is made in connection with any bird

or 'four-foot' in this place. The friendly initiative comes as much from the birds and 'beasts' and is the result of the food and shelter and their sense of security.

The wire enclosure that at first shut in a portion of the pond, to make sure that the pair of pinioned Wood Ducks did not walk off (for they are fast travelers a foot), has been removed and they have the freedom of the whole ten acres. In May, the Duck retired every morning to the tree-hole, suitably placed for nesting, on a small island. No sooner had she disappeared than the Drake walked (these Ducks do not waddle) quickly uphill to the border of the Sanctuary where there is other wardens' poultry-houses. There he re-



FEEDING YOUNG PHEASANTS

Photographed by Wilbur F. Smith

mained, sometimes picking up a few scraps, but more often huddled close to the wires, as if merely wishing the sociability of club life. In due course he returned to his mate where they spent the rest of the day together on the pond until incubation began.

For some unknown reason, the eggs failed to yield young, and when examined after the Duck came off, some were found to be broken and others rotten. It may be that the Duck was disturbed by black snakes, an unusual number of which have been both seen and killed in the neighborhood this season, the severe local drought having parched the mud of their low pasture haunts and sent them water-hunting.

Never mind, there is always another year, and the keepers of a Bird Sanctuary must, in addition to many other trades, be 'Hope Brokers;' and

though we lack the hoped-for argosy of Wood Ducklings, the philosophical parents furnish a charming picture every afternoon as, appropriating a log anchored in the pond for the benefit of turtles, they preen their exquisite plumage in full sunlight.

Are Mourning Doves shy? Not hereabouts where they nest and on occasion share the food in the chicken-pen, making a very novel picture, that, unfortunately, we could not secure by photography because of the strong shadows cast by the fencing.

The Mourning Dove, once plentiful but seldom seen here on the edge of town for ten or a dozen years, seems to be on the increase. Four nests have been located within a 30-acre radius, one being in the Sanctuary. There is one serious objection to this Dove as a resident of home-grounds, where the trees overhang or are close to a house having a sleeping porch. It too often, by its intensive throaty crooning, calls the sleepers to early *mourning* meditations that are not prayers!

In this, a specially prevalent year for the tent caterpillar, Birdcraft is free, even though it has wild cherry trees galore. Why? Cause and effect. The cause being just four nests in early May, the effect, Cuckoos, Black and Yellow-billed, that in a single week tore the filmy nests apart and kept such vigil that no more appeared.

When the eye tires of looking skyward, even through dense shade, look down among the thick masses of the leaves of many years, that are a 'must be' in a sanctuary of the wild, be they flower, bird, or little beast.

Something hops down a trail, tawny with a white tuft following. Molly Cottontail goes straight to a hollow under some bushes where is her furnished nest—mid-August, yet cosy enough for winter. Wild rabbits make a charming sort of undertone in the Sanctuary. One may enjoy them without reckoning the cost in nibbled garden stuff. The rabbit hounds may sniff the air and howl, hold their tails gaily, and follow false trails—outside the fence—here they are safe. Do they not increase too fast? Seemingly no. When autumn comes they scatter, for though their enemies cannot get *in* the rabbit can squeeze through almost impossible places, and evidently the wild call reaches their sensitive twitching ears and compels them to be off and away! For those that remain, there will be some cast away carrots, or cabbage stems, for surely this little soft-eyed Brownie may earn his keep, if not by working merely by not eating forbidden things! In a world so horseless and mechanical, Molly Cottontail, with reasonable bounds, should be treated with affectionate courtesy.

The Evening Grosbeak at Ithaca, N. Y.

By HERBERT FRIEDMANN

With Photographs by the Author

DURING the winter of 1921-22, a small flock of Evening Grosbeaks made their headquarters in one of the yards on the north side of Fall Creek Gorge, just north of the Cornell University campus. The size of the flock fluctuated from day to day, usually about ten birds being seen, but on one occasion as many as thirteen were observed. The sexes were about evenly represented and mixed freely together. In this particular yard the birds had become accustomed to being fed with crumbs thrown from the windows of the house, and had, consequently, become rather tame. A photographic feeding-station was started, and the feeding from the windows controlled so as not to entice the birds away from the feeding-log. It took the Grosbeaks but a very short time to accept the new log, in spite of the shadow of the nearby blind, and within a day or so they were passing a considerable part of the time there. Sunflower seeds proved an ever-attractive diet and brought other birds as well—Chickadees, Nuthatches, etc. But the Grosbeaks were easily the outstanding individuals of all the birds that patronized the log, and no one who has not experienced it can quite imagine the thrill of watching, at arm's length, these handsome wanderers from the far Northwest.

Looking through the blind peek-hole a foot or so above the camera, the log seemed surprisingly close, although I knew the distance in advance. Suddenly a splendid male perched on the very top of the log and stood there silhouetted against the snow. The dull old-gold, burnished with greenish olive, the conspicuous white and dark of the wing, the light superciliary stripe, all stood out clearly against the pure white of the background and marked him at once as a distinguished visitor. A little later a female, sober and quiet in plumage, but harsh of voice and apparently harsh in disposition, hopped up, chased him off, and perched in his place. Many times the females drove off the males from this point of vantage, but on only several occasions did I see a male chase away a female. Later, when another log was used in place of the first one, the females again seemed to take charge and drive away the males when so inclined.

The birds seemed to have a regular daily round of places to visit, as they were usually seen in this yard for only a few but more or less definite hours each day, and spent the rest of the time elsewhere.

An account of the previous visits of the Evening Grosbeak to Ithaca can be found in Dr. Allen's paper, 'On the Trail of the Evening Grosbeak,' published in *BIRD-LORE* for December, 1914.



EVENING GROSBEAKS

Photographed by Herbert Friedman at Ithaca, N. Y., in February, 1922



EVENING GROSBEAKS

Photographed by Herbert Friedman, at Ithaca, N. Y., in February, 1922

Our Winter Guests

By BEEBE THOMPSON CHAFIN, Monticello, Ark.

AT THE oncoming of autumn, doubtless those who dwell in the Northland, follow in thought the departing birds. The imagination sees these bright companions of vanished summer disporting in balmy air, flying under sunny southern skies, singing and building. The migrating bird becomes to the wistful mind a symbol of humanity, when it, too, shall know no winter in its year, no sorrow in its heart. Now, the fact of the matter is, the visitant birds do fly, sometimes under blue, sometimes under gray skies, they sing a little and build not at all.

Down in this sunny southeastern corner of Arkansas we entertain many winter visitants and we think we do pretty well by them. In our woods and by our streams grow astringent fruits and berries. Juneberries and winterberries, berries of the dogwood and holly, of the bittersweet and wahoo and greenbrier. Here are Virginia creeper and poison ivy and wild grape and moonseed. Here are the drupes of the black gum and the pearly berries of the mistletoe. Pokeberry and sweet elder and Indian currant and sumac fill every fence-corner. Trailing among the brown leaves is the partridge vine, whose crimson double berry is beloved by the Quail. For the fruit-loving bird, there is a world of persimmons and sloes and haws. All this is to say nothing of nuts and seeds and insects—the bird that desires and seeks may easily find them.

Nor do we stint our confiding visitants in the matter of lodging. Mine host, the Cedar Tree, spreads a feast of delectable berries. His sheltering boughs offer 'wildwood privacies' for the feathered folk. They find comfort and protection in our woods, our pine groves, our cane-brakes, and tangled thickets. Man makes himself an ally of nature. The householders in our quaint old town are inordinately fond of broad, smoothly trimmed, privet hedges. Also they are partial to the viburnum, the magnolia, the cape jasmine, the Japanese honeysuckle. All of these afford shelter, some food, for the birds.

Sad to say, in spite of our hospitality, some of our winter guests hold themselves very much aloof. They are painfully shy and distraught. Plainly, this southern land is to them an habitation enforced. There is the Brown Thrasher, for instance. Throughout his winter sojourn, it is little we see of him; at the utmost, a glimpse of ferruginous brown as he dashes precipitately into some broad privet hedge, or wings his way silently through some tangled thicket. He grants us not a note of that delicious melody which he pours out so lavishly in his homeland. And as for the Hermit Thrush, he abides apart. He must be sought in the most secluded and inaccessible places. Truly, a change has come over the spirit of his dream. The writings of John Burroughs and Torrey and Olive Thorne Miller and Mabel Osgood Wright eulogize this

shy, adorable bird. To us who see him in the winter of his discontent, his shyness is his dominant trait. Also the poets, we know, have drunk deep of the exaltation and the rapture of the Hermit Thrush's ineffably beautiful strain. We must e'en trust the poets in that matter, too. It is said that in the depths of the greening woods, when our winsome spring is early abroad, this shy bird breathes forth his delicious song. I have heard of those who have heard it. But his exuberance, his rapture, he reserves for other times and places.

To be sure, in this time of the year, when the earth interposes a shoulder between us and the comforting sun, the bread-and-butter problem looms large with the birds. Constant vigilance is the price of a meal and they need frequent meals to help them maintain their heat and vigor. Then, too, the absence of concealing foliage renders them wary and shy.

But not all of our visitants are so chary of their charms. The White-throated Sparrow, for instance, is a most satisfactory guest. To be sure, the pursuit of food is engrossing. Harassing, too, our White-throat seems to find it, for he twists and twitches and scratches vigorously among the dry grass and leaves. But his crop once full, he resumes his poise of manner. An adorable fluffy ball, he sits on branch or bush and warms himself through and through in our grateful sunshine. He loves to repose himself on the broad breast of a hospitable privet hedge, or he ensconces himself picturesquely in a winter-berry tree. This little tree, with its mottled silvery gray bark and abundant scarlet berries, makes a fit setting for the dainty White-throat. The white-tippet, the striped crown with its touch of yellow, the soft roundness and gentleness of this bird make him a captivating creature. But when golden light lies along the west, after a day of rain; or a hush succeeds great winds; or the odor of violets and premature hyacinths pervades the air of some soft January day—it is then our guest pays richly for housing and food. Sweetly, clearly, come his high, plaintive notes—*I-I-Pea-bod-y, Pea-bod-y, Pea-bod-y-I*. Or perhaps he says *Swee-e-et Can-a-da, Can-a-da, Can-a-da-ah*. Edith Willis Linn, in one of her poems, interprets his song thus: *All, all is well, is well, is well*. I like that. Surely, bird-song celebrates the universal. At any rate, peace and faith and hope and deep content breathe through his strain. Listening, we murmur, "A thousand times your debtor, gentle White-throat!"

Another welcome guest is the Chewink or Towhee. His tri-colored coat enlivens our winter landscape. With back and head and throat of black, with sides of russet and breast of white, he is brave, indeed. Dame Chewink is chocolate-brown where her mate is black. They, too, seek their provender on the ground and search among the fallen leaves, scratching the earth like a barnyard fowl. Friend Chewink dotes upon our privet hedges. They afford him shelter and delightful runways. Innumerable times a day he precipitates himself into their depths, uttering his cry, *chewink, chewink*, the White-

throats' metallic *chink, chink* filling the intervals. The ground for provender, but for reposeful basking in the sunshine and for song, the Chewink goes higher. Winter seems hardly winter when he sits in a crape myrtle and sings his soft trilling, *tow-he-e-e*. He is a handsome bird, with his rich and varied coloring and distinct marking. It is interesting to observe the sharp line that divides his black frontlet from his snowy waistcoat. Here, in his winter retreat, he is shy and comes about our homes only when unusual cold makes him a pensioner on our bounty. But he is not far to seek and we enjoy mightily his bright bustling presence.

Here are the Juncos, flocks of them. The teamwork of these fellows is excellent. Doubtless their twinkling white tail-feathers and sharp frosty call-notes help to keep the flock together. The Junco's garb imitates a winter day—gray of the leaden snow-cloud above, white of the fallen snow beneath. Down in this mild corner, our little gray-clad friend will seldom bury his dainty toes in the snow. But it must be confessed he looks a trifle subdued when he sits in the bare poles of a china tree in a downpour of winter rain.

All day these sprightly birds whisk in and out of the underbrush and bushes or drop down into yards and gardens. They are wet-weather friends. When come gray skies and dropping clouds, they troop about the house and divert us with their merry ways. They enliven our walks across the fawn-colored fields. They dart on before us as we drive along the highways. They give life and zest to our winter landscape. It is to be hoped that they never decide to bide up in Canada the year through. We have so associated the Juncos with gray skies and bare bushes that it seems a bit incongruous to see a flock of them twinkling about in a patch of sweet violets on some mild blue day in February. The Towhee, too, scratching among the clumps of daffodils, apparently takes it as a matter of course that he should have two springs in his year.

Oh, the wise Junco! Well he knows where to tuck himself away when night falls. Our beautiful cemetery is a veritable bird sanctuary. It is a delight to stand there in the twilight and watch the birds putting themselves to bed. Here come the Juncos on swift, confident wing. The green odorous depths of an arborvitæ open to receive them. Or they dart into the very heart of some comfortable viburnum or cape jasmine. There is a twinkle of white tail-feathers, a quivering of the branches, and friend Junco has a lodging for the night. Nor is the privet hedge an unacceptable shelter. Often, after ensconcing himself therein, he bobs up again and reposes on the hedge's broad breast. Perhaps he wants one more look at the world of things, or he wishes to reflect a bit over the day's happenings. At any rate, there he sits and allows the mere mortal to observe his sparkling eye, his white bill, his pretty gray mantle, with the sharp line separating it from the white waistcoat.

It is a January day in our Southland, mild and bright. Cloud galleons race across the blue. Outlined against the turquoise sky are the smooth, white

branches of a sycamore. Around and around the dangling brown sycamore balls go a flock of rosy birds. They cling, they sway, they eat, tearing the balls into bits of down that float upon the breeze. The Purple Finches are here! Though winter guests, they come late. But observe—not all the flock are of a rosy hue. Some are so demurely gray-brown and so streaked with brown that they are decidedly sparrow-like in appearance. But the stout bills and forked tails show that they are not Sparrows. They are the dames and one-year olds of the Finch flock. Purple Finches are omnivorous feeders. To see them swaying with the swaying branches of the privet, feasting upon the purple-black berries, is a pretty sight, the more so if a Bluebird and some Cedar Waxwings chance to keep them company. A poet writes thus:

Like sweet-voiced prophet who foretells
The blessed days the years are bringing,
When hate shall yield to power to love,
Hark! Hark! the Purple Finch is singing.

But he sings where his young are reared. Down here in his winter home, he is too engrossed with privet berries and sycamore balls to give us even a sample of his spirited warbling song. As he circles and sways he looks like a flower come to untimely bloom. Head and back and shoulders are covered, as it were, with a lovely transparency of raspberry hue. At the base of the tail is a spot of rarest rose. Altogether, he is a bonny bird. His soft warm color, his graceful movements, his companionable ways, make him a most welcome winter guest.

But of all the feathered folk who follow the southing sun, what one so dear as the gentle Waxwing? The Purple Finch puts up at the sign of the Sycamore Ball, but mine host, the Cedar Tree, spreads a refectory for the Waxwings. They feed upon the pale blue berries and find grateful shelter in the feathery branches. Nor are they indifferent to the privet berries. These birds, like the Finches, are fearless when feeding, and permit the observer to draw close to them.

Up in the oak tree sits a flock of them, ten in number, side by side, heads all turned in the same direction. Bye and bye, they fly down to the privet hedge, the hedge that has been permitted to grow and bear its wealth of berries. Observe the Waxwing's coat of satiny gray, his expressive erectile crest, the black band across his face, the yellow band across his tail, the curious bits of red, wax-like substance on the tips of his wing-feathers, the glimpses of softest yellow that are revealed as he sways back and forth, clinging to the swaying branches and feeding on the astringent berries. The Waxwing is an elegant bird, incomparably well-groomed, high-bred. He, above all others, brings to mind Emerson's lines:

O birds, your perfect virtues bring,
Your song, your forms, your rhythmic flight
Your manners for the heart's delight.

To be sure, the Waxwing has been denied the gift of song, but he has a soft, caressing, lisping note that is wonderfully endearing.

When the numerous Warblers start south in pursuit of summer, the most of them go south, indeed. But there is one, the Yellow-rumped or Myrtle Warbler, who decides that Arkansas is good enough for him and he bides with us throughout the winter. Dim are the yellow patches on crown and side, but, thanks be! the spot of yellow upon his rump remains and assists us in identifying him. Would that every bird had some mark as distinctive as the Junco's ivory bill, the White-throats' tippet, the Myrtle Warblers' yellow rump, the pink bill and feet of the Field Sparrow. Our Warbler is also a guest at the sign of the Cedar Tree. He finds the poison ivy berries very much to his taste. Nor is he averse to privet berries. Berries and insects, either or both, are acceptable to him. A merry fellow is this Yellow-rump. For hours together he threads the mazes of the cedar tree. But ever and anon, wings all a-flutter, he precipitates himself into the air, describes a half-circle, and is back in his retreat. Does he thus express his sheer joy of life? Or did he spy an insect?

Winter bestows upon us another charming gift in the presence of those sprightly midgets, the Golden and Ruby-crowned Kinglets. Little kings, to be sure, bejeweled and becrowned, but free and informal and democratic in their manners. In this southern land, they join company with the Tufted Titmice, the Nuthatches and Carolina Chickadees. And what a jolly crew they form! They romp, they carol, they engage in all sorts of acrobatic feats.

These, then, are some of our winter guests. How very much of charm and grace and beauty they bring to cheer us in the dark o' the year. Nor is that all. Victor Hugo's good old bishop said to his housekeeper, when she wanted to plant all vegetables and no flowers: "Madame Magloire, the beautiful is as useful as the useful—perhaps more." The birds are beautiful and simply to be beautiful is to be useful. But they also perform a service great enough to satisfy even the most utilitarian and perverse putter of the question—"Will it bake bread?" In fact, if it were not for the birds, we should have no bread. What is meat to them is death to us. While they feed, they free us from the weeds and vermin that menace our own food-supply.

Nor is this the sum of their ministrations. They speak to the soul. They remind us that we have here no abiding city. Our homeland, too, lies elsewhere. When dearth and pain irremediable come upon us, we, too, may repair to an "island-valley where falls not hail or rain, or any snow, nor ever wind blows loudly."



TWENTY-SEVEN GREAT BLUE HERONS' NESTS IN ONE TREE
Photographed by Donald Gillingham in Stanley Park, Vancouver, B. C.

Birds Seen in Florida in February, 1923

By WM. G. FARGO, Jackson, Mich.

THE state of Florida offers many unusual opportunities for the study of bird-life. The great extent of shore-line, large areas of swamps and marshes covered with different types of vegetable growths, together with its continued warm climate, make the state peculiarly attractive to a great variety of birds. While the greatest number of different birds and largest total quantity of birds will be seen in the state during the spring migration season and the nearly coincident beginning of the local breeding-season, yet the winter tourist will find a greater number of species resident during his stay, even if only for a month or two, than in any other state of the Union known to the writer, with the possible exception of Texas.

The following notes on the winter bird-life of Florida were derived from observations made during a period of four weeks, beginning January 25, 1923, and cover in a general way the territory between Jacksonville and Palm Beach on the East Coast and between Cedar Key and Fort Myers on the western side of the state, with several cross trips and a drive from Tampa to Bartow and Lake Wales, thence southward to Punta Gorda. A week was spent in crossing the state from Fort Myers to Palm Beach, following the Caloosahatchie River and crossing Lake Okeechobee.

Water-birds of all sorts—swimmers, divers, and waders, together with shore-birds—are to be seen in numbers, both on the interior lakes and on the coast-lines throughout the winter.

Water- and shore-birds were found far more numerous and in greater variety on the West Coast than on the East Coast. This seems to be due, principally, to the fact that there is a greater variety and greater quantity of food for birds on the Gulf of Mexico.

The proximity of cities and towns does not seem to have the effect of driving away the shore-birds, waders, and such of the Ducks as winter in the territory included in the scope of these notes. Birds of all sorts found near towns were tamer and allowed closer approach than those found in wilder parts of the state. Large numbers of individuals of many varieties of water-birds were always to be seen during the writer's stay of ten days at St. Petersburg, all along the water-front of the city or closely adjacent thereto. Certain of the shore-birds not commonly seen along the water at St. Petersburg were nearly always found on the Gulf Coast proper, at Pass-a-Grille, about ten miles away and easily accessible from the city by electric railway and ferry.

The small perching birds that winter in Florida were found principally in mixed growths of timber along the streams or around small bodies of water. Such birds find but little food in the pine forests or on the dry uplands. In St. Petersburg the Warblers and Flycatchers were mostly seen around the shores of Coffee-Pot Bayou, in the eastern part of the city, especially near the

Masonic Home. In the western part of the city, the shore of Little Bayou, where lined with mixed tree growths, especially to the east of the Bayou Bonita Club House, was well populated during the first week of February with a variety of small perching birds. Eighty different birds were identified near St. Petersburg and 35 others in other parts of Florida. Of these 115 species and subspecies, 50 are water- and shore-birds. Beside these birds well identified, a number of Ducks, Sparrows, and a few Warblers were not identified positively.

The most common Duck seen during the period was the Lesser Scaup, commonly known to hunters as the Bluebill. Probably 80 to 90 per cent of all the Ducks seen in Florida were Lesser Scaups. At Daytona, Cocoa, and



LESSER SCAUP DUCKS ON THE INDIAN RIVER

West Palm Beach large flocks of these Ducks will approach the bridges or wharves within 15 feet of crowds of people, to be fed. At Cocoa, on the East Coast, tourists were feeding both Ducks and catfish from a pier, but the Scaups would not approach within 5 feet of where the catfish were swarming.

On and about Lake Okeechobee enormous quantities of water-fowl were seen. About a mile out in the lake from Canal Point, on the southeast shore, there are bars or shoals and here three flocks of Ducks, apparently mostly composed of Scaups, were seen at once on February 12, which aggregated about 2 miles in length and not less than 100,000 birds. They were so wary, from having been shot at, that they would fly when a boat approached within a half mile. So great was their density, that these bird-rafts, when seen a mile away, had the appearance of islands in the lake although no grass or rushes grew where they were.

Owing to very heavy rains in the late fall of 1922, the water in Lake Okeechobee still stood at a high level in February, and the lowlands around Moore Haven, on the west side of the lake, were more or less under water.

These flooded lands, both inside and outside the dikes which lie between this town and the lake, were swarming with many sorts of water-birds, including the Horned and Pied-billed Grebes, Great Blue or Ward's Heron, Little Blue Heron, Louisiana Heron, Snowy Heron, American Bittern, Least Bittern, King and Sora Rails, Coots, and Florida Gallinule.

In Florida, darkness comes soon after the sun sets, the twilight period being short. Birds that pass the night some distance away from their daytime feeding-ground will be observed, at evening, while the sun is a little above the horizon, flying in flocks toward their respective quarters for the night. At Moore Haven, ten minutes before sunset, the skies were filled with flocks of water-birds, including waders, going out to the margin of the lake and of Plovers coming inland. The Little Blue and Louisiana Herons were seen together, in flocks of 20 to 70.

It was observed that all the Herons often began their flight with necks outstretched and flew in this manner a quarter of a mile or more before infolding their necks. They were also observed in flight with outstretched necks while passing a person or otherwise reconnoitering any supposed source of danger. Cranes are now scarce, and large wading birds, flying with outstretched necks, cannot immediately be assumed to be Cranes.

In the Caloosahatchie valley, between Moore Haven and LaBelle, 30 miles westward, a number of unusual birds were observed and vouched for as resident by the natives. The Wild Turkey is often seen in the scrub palmetto around LaBelle. A Wild Turkey gobbler with one hen Turkey was surprised by the writer while feeding in a long, narrow opening among scrub palmettos. They were about 200 feet away and both stood still in bright sunlight long enough to be observed through the binoculars. The gobbler was a large, heavy bird and ran first, moving with high speed along the narrow open space, for a distance of about 200 feet, then quickly disappeared in the scrub. The hen was lighter in weight and taking a running start of perhaps 30 feet, sailed away among the tree tops as easily and swiftly as a Quail or Partridge.

This Wild Turkey gobbler was distinctly light clay-brown on the back, about the same shade as the Brown Pelican. On making inquiry it was learned that Wild Turkeys of this color were sometimes seen in this locality and attributed to the fact that a light-colored domestic gobbler had ran away from a farm, some years before, and this mixed strain still persists thereabout.

The Black Vulture was more common near LaBelle than the Turkey Buzzard, and occasionally a lone Audubon's Caracara was seen with the Black Vultures. This Caracara (locally called Mexican Buzzard) is not as impressive a bird in appearance as sometimes pictured, but was said by observing natives to drive the other Vultures away when feeding. The Black Vulture is readily distinguished from the Turkey Buzzard by its black, naked head, while that of the Buzzard is red. The tips of the Black Vulture's wings, for about a fourth of their length, show dirty white above and below. The area

of light color under the Buzzard's wings is larger and there is no light color on the upper surface.

The Vultures were often observed with the hogs that run wild in the woods. Once a flock of 50 or more were thus seen about a water-hole in the edge of woods, hopping about stiff-legged with half-spread wings, like a band of southwestern Indians in their war-dances. They presented a decidedly ludicrous appearance.

The Florida Burrowing Owl, about 9 inches in length, is common along the highway near Citrus Center, a nearly abandoned town some 15 miles west of Moore Haven. These Owls move about more or less in the daytime and may readily be approached within a few feet.



LESSER SCAUP DUCKS AT COCOA, INDIAN RIVER, FLORIDA, BEING FED FROM THE BRIDGE
Photographed by G. E. McColm

The land-birds most generally distributed and commonly seen in central Florida during the winter are: Ground Dove, Southern Downy, Red-cockaded and Red-bellied Woodpeckers and Flicker (*auratus*). The Yellow-bellied Sapsucker and the Red-headed Woodpecker were occasionally seen in the northern part of the state. The Pileated Woodpecker was often seen in the Caloosahatchie River bottoms, but not elsewhere. The Florida Crow and the Fish Crow were generally observed; the latter is smaller and has a hoarse, nasal cry.

Of the Warblers, the Palm Warbler was everywhere common, with the Myrtle next in numbers and general distribution. The Myrtle Warblers were in all stages of plumage, some showing very little yellow. The Mockingbird is common everywhere. The Robin was seen in most localities; great flocks

of them were seen feeding on palmetto berries along the Caloosahatchie River in early February.

The two sections of Florida visited which afforded the best opportunities for bird-study in February were: St. Petersburg and the section between Moore Haven and LaBelle, along the Caloosahatchie Valley. Later in the spring, when migration has begun, the central lake region near Orlando is said to be full of small birds, including many Warblers.

Three bird-refuges were visited, one on the East Coast and two on the West Coast, but in February there were fewer birds at these places than at other favorable feeding-grounds. In the breeding-season there were said to be many water-birds nesting at these places.

In the vicinity of Cedar Key, on the West Coast, there is a guano industry carried on by two different firms on a fairly large scale, and in a manner which tends to conserve bird-life. Roosting-places, over platforms, are built on piling out among the keys, the droppings being periodically collected by boats and shipped in car lots from Cedar Key and possibly from other places. The principal birds depended upon are the Pelicans and Cormorants.

On one Government-owned key on the West Coast, locally known as a bird-breeding place, but not specially protected, a drove of hogs were found feeding on shellfish and various roots. These hogs were placed there by a merchant in a nearby town who dug a fresh-water well with a planked incline to allow the hogs to reach the water, but otherwise gave them very little attention. It is somewhat of a question whether the hogs were a detriment or a benefit to the birds which breed there. This key formerly abounded with snakes. The hogs, no doubt, lessen the number of snakes, but also would destroy young birds that might be on the ground.

Florida lacks proper game laws, and there is no specially organized department to enforce such game protective laws as are now in effect, except as to fisheries.

Bird-Lore's Twenty-fourth Christmas Bird Census

BIRD-LORE'S Annual Bird Census will be taken as usual on Christmas Day, or as near that date as circumstances will permit; *in no case should it be earlier than December 22 or later than the 27th*—in the Rocky Mountains and westward, December 20 to 25. Without wishing to appear ungrateful to those contributors who have assisted in making the Census so remarkably successful, lack of space compels us to ask each census taker to send only *one* census. Furthermore, much as we should like to print all the records sent, the number received has grown so large that we shall have to exclude those that do not appear to give a fair representation of the winter bird-life of the locality in which they were made. Lists of the comparatively few species that come to feeding-stations and those seen on walks of but an hour or two are usually very far from representative. A census-walk should last *four hours at the very least, and an all-day one is far preferable*, as one can then cover more of the different types of country in his vicinity, and thus secure a list more indicative of the birds present. Each report must cover *one day only*, that all the censuses may be comparable.

Bird clubs taking part are requested to compile the various lists obtained by their members and send the result as one census, with a statement of the number of separate ones it embraces. It should be signed by all observers who have contributed to it. When two or more names are signed to a report, it should be stated whether the workers hunted together or separately. Only censuses that cover areas that are contiguous and with a total diameter not exceeding 15 miles should be combined into one census.

Each unusual record should be accompanied by a brief statement as to the identification. When such a record occurs in the combined list of parties that hunted separately, the names of those responsible for the record should be given. Reference to the February numbers of BIRD-LORE, 1921-22, will acquaint one with the nature of the report that we desire, but those to whom none of these issues is available may follow the form given below. The date is important, and the species should be given, *in the order of the A. O. U. 'Check-List'* (which is followed by most standard bird-books), with, as exactly as practicable, the number of *individuals* of each species recorded.

Yonkers, N. Y. (to Bronxville and Tuckahoe and back).—Dec. 25; 8 A.M. to 4.30 P.M. Clear; 5 in. of snow; wind west, light; temp. 38° at start, 42° at return. Eleven miles on foot. Observers together. Herring Gull, 75; Bob-white, 12 (one covey); (Sharp-shinned?) Hawk, 1; . . . Lapland Longspur 1. Total, 27 species, about 470 individuals. The Longspur was studied with 8-power glasses at 30 ft.; blackish breast, reddish nape and other points noted.—JAMES GATES and JOHN RAND.

These records will be published in the February issue of BIRD-LORE, and it is *particularly requested* that they be sent to the Editor (at the *American Museum of Natural History, New York City*) by the *first possible mail*. It will save the Editor much clerical labor if the model here given and the order of the A. O. U. 'Check-List' be closely followed.—J. T. NICHOLS.

Annual Congress of The American Ornithologists' Union

THE forty-first stated meeting of the American Ornithologists' Union was held at Cambridge, Mass., October 8-11, 1923.

At the business meeting of the Union, held at the Colonial Club, October 8, the following officers were elected: President, Jonathan Dwight; Vice-Presidents, Joseph Grinnell and Alexander Wetmore; Secretary, T. S. Palmer; Treasurer, W. L. McAtee. Dr. Charles Wendell Townsend, of Boston, was elected to fill the one remaining vacancy in the list of Fellows, and Charles Dean Bunker, of Lawrence, Kans.; Joseph Scattergood Dixon, of Berkeley, Calif.; and George Finlay Simmons, of Austin, Texas, were elected members.

Twelve Corresponding Fellows and 173 Associates were also elected. The program of the public session in the Museum of Comparative Zoölogy and Pierce Hall included the following forty-three papers:

1. The Arrangement of a Study Collection of Birds. Frank M. Chapman, New York City.
2. Looking Backward. T. S. Palmer, Washington, D. C.
3. Mimicry of Voice in Birds. Charles W. Townsend, Boston, Mass.
4. European and American Song Birds Compared. Henry Oldys, Silver Spring, Md.
5. The Status of Sanibel Island, Florida, as a State Bird Preserve. Miss Catharine A. Mitchell, Riverside, Ills.
6. European Ornithologists and International Bird Protection. T. Gilbert Pearson, New York City.
7. The Everglade Kite in Florida. Arthur H. Howell, Washington, D. C.
8. Effect of Cultivation upon Changing Bird Populations. Henry E. Childs, E. Providence, R. I.
9. Ecological Comparisons and Parallels: Panama and Congo. James P. Chapin, New York City.
10. A Neglected Bird Paradise. Harry C. Oberholser, Washington, D. C.
11. Experiences among the Breeding Shore-Birds of Great Salt Lake, Utah. Herbert W. Brandt, Cleveland, Ohio.
12. An Eagle Observatory: Record for 1923. Francis H. Herrick, Cleveland, Ohio.
13. Notes on a Scranton Starling Roost. Illustrated by lantern slides. R. N. Davis, Scranton, Pa.
14. Trapping Devices for Bird Banding. Illustrated by lantern slides. Henry E. Childs, E. Providence, R. I.
15. Some Bird Banding Experiences. B. S. Bowdish, Demarest, N. J.
16. Midsummer Song Sparrows: A Statistical Study of Banding Data. John T. Nichols and Rudyard Boulton, New York City.
17. The Migration of the Mallard (as shown by banding data). Illustrated by lantern slides. Frederick C. Lincoln, Washington, D. C.
18. Experiences in Bird Banding. Illustrated by lantern slides. W. I. Lyon, Waukegan, Ills.
19. Scientific Results from Bird Banding. Illustrated by lantern slides. S. Prentiss Baldwin, Cleveland, Ohio.
20. The Forms and Representatives of *Calonectris kuhli*. Robert Cushman Murphy, New York City.
21. The Affinities of *Lawrencia nana*. Alexander Wetmore, Washington, D. C.
22. Remarks on *Thraupis sayaca* and its Allies. Mrs. Elsie M. B. Naumburg, New York City.
23. Life Zone Problems of the New York City Region. Ludlow Griscom, New York City.
24. Remarks on the Classification of Birds. W. DeW. Miller, New York City.
25. Criteria for the Determination of Subspecies in Systematic Ornithology. Frank M. Chapman, New York City.
26. The Heath Hen on Martha's Vineyard. Illustrated by lantern slides. Alfred O. Gross, Brunswick, Maine.
27. Birds of the Kasai District, Belgian Congo. Illustrated by lantern slides. James P. Chapin, New York City.
28. Field Observations in the Hawaiian Bird Reservation. Illustrated by lantern slides. Alexander Wetmore, Washington, D. C.

29. The Cleveland Museum Expedition to the South Atlantic and Indian Oceans. Illustrated by lantern slides. Geo. Finlay Simmons, Austin, Texas.
30. Report on the Progress of the Whitney South Sea Expedition. Illustrated by lantern slides. Robert Cushman Murphy, New York City.
31. Notes on American Oystercatchers. Robert Cushman Murphy, New York City.
32. The Junior Audubon Work on Long Island. Mrs. Mary S. Sage, New York City.
33. Notes on the Summer Birds of Newfoundland. Illustrated by lantern slides. Ludlow Griscom, New York City.
34. The Nesting of the Short-tailed Hawk in Florida. Illustrated by lantern slides. Herbert W. Brandt, Cleveland, Ohio.
35. Mutation *vs.* Evolution by Environment in Birds. Illustrated by lantern slides. Frank M. Chapman, New York City.
36. Notes on the Non-breeding Birds of Southeastern Texas. Maunsell S. Crosby, Rhinebeck, N. Y.
37. The Birds of Mt. Itatiaya. Ernest G. Holt, Montgomery, Ala. Presented by Mrs. Elsie M. B. Naumburg, New York City.
38. Colorado Anatidæ. W. H. Bergtold, Denver, Colo.
39. Vagaries of Bird Migration. P. B. Peabody, Blue Rapids, Kans.
40. Kirtland's Warbler in its Summer Home. (Exhibition of film made by James McGillivray, Oscoda, Mich.) Presented by Nathan F. Leopold, Jr., Chicago, Ills.
41. The Vanishing Heath Hen. Herbert K. Job, West Haven, Conn.
42. Home Life of Common Birds. Herbert K. Job, West Haven, Conn.
43. The Birds of Laysan. (Exhibition of film made by Donald R. Dickey, Pasadena, Calif.) Presented by Alexander Wetmore, Washington, D. C.

The Migration of North American Birds

SECOND SERIES

XXIII. SCOTT'S ORIOLE AND AUDUBON'S ORIOLE

Compiled by Harry C. Oberholser, Chiefly from Data in the Biological Survey

Scott's Oriole (*Icterus parisorum*) is an inhabitant of central and northern Mexico and the southwestern part of the United States. It breeds north to central western Texas, central New Mexico, southern Utah, southern Nevada, and southern California; west to southwestern California and southern Lower California; south to the Mexican State of Puebla; and east to Vera Cruz, Nuevo Leon, and central western Texas. It winters in Mexico north to northern Lower California, Sonora, and Chihuahua; and south to the states of Michoacan, Morelos, and Oaxaca.

The few available migration notes on this Oriole are given below:

SPRING MIGRATION

LOCALITY	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Tombstone, Ariz.	5	April 10	March 31, 1912
Carlisle, New Mex.	1		April 22, 1890
Silver City, New Mex.	1		April 19, 1914

FALL MIGRATION

LOCALITY	Number of years' record	Average date of departure	Latest date of departure
Tombstone, Ariz.	2	Sept. 25	Oct. 26, 1909

Audubon's Oriole (*Icterus melanocephalus auduboni*) is a subspecies of the Mexican Black-headed Oriole. It is permanently resident and breeds from central southern Texas south to the Mexican states of Nuevo Leon and Tamaulipas. It occurs in winter also south to the Valley of Mexico.

Notes on the Plumage of North American Birds

SIXTY-EIGHTH PAPER

By **FRANK M. CHAPMAN**

(See Frontispiece)

Scott's Oriole (*Icterus parisorum*. Figs. 2-4). Nestling birds of both sexes are olive-green above, yellower below, with no trace of black. At the postjuvinal (first fall molt) the male usually acquires a black throat and the back is more or less streaked. These markings, particularly above, are more or less fringed with grayish and olive, and are not fully revealed until, with the advancing new year, the feathers become worn and we have the first breeding plumage (Fig. 3).

At the succeeding fall (postnuptial) molt a further advance is made toward the brilliant yellow and black of maturity (Fig. 2), but my material does not show whether this plumage is acquired at the first postnuptial molt or later.

The female, at her first molt (postjuvinal) usually gains a plumage much like that in which she left the nest but some specimens have more or less black on the throat and some fully adult females have as much black on the throat and head as the immature male.

Audubon's Oriole (*Icterus melanocephalus auduboni*. Fig. 1). In nestling plumage, Audubon's Oriole is olive-green above, greenish yellow below, the wings and tail being externally brownish. The black head of the adult is acquired at the postjuvinal (first fall) molt, but the wings and tail are still those of the young bird. This plumage is worn throughout the first nesting season, at the end of which the black wings and tail are acquired and the bird resembles our figure. The female closely resembles the male and often cannot be distinguished from it in color, but usually the back is more olive-green, less pure yellow than in the fully adult male.

Notes from Field and Study

Bird-Life in the Sans Poil Valley, Washington

Our party of three, T. A. Bonser, professor of natural science at the North Central High School and curator of the Public Museum, J. L. Sloanaker, ornithologist and professor of chemistry at the same school in Spokane, and the writer started from Spokane by automobile on the morning of August 22, 1923. Our trip of 350 miles took us to Wilbur, Keller, and Republic, Wash., and down the Kettle River, via Grand Forks, B. C., Laurier, Marcus, and back to Spokane. It was excellent weather and everything else propitious. We all agreed that the outing was about the most delightful within our experience. The principal objects of the expedition were to study the birds on the way and to examine and collect specimens of the fossil plants embedded in certain rock strata in and around the town of Republic.

The scenery along the Sans Poil River is magnificent. The valley is narrow, bounded by high mountains and stupendous cliffs, hundreds of feet high. We followed the river from where it empties into the Columbia to its source, and then crossed the divide to the headwaters of the Kettle River, which we followed to its mouth.

The bird-life of the Sans Poil valley is noted for the great number and variety of species. Along the road, and at our camping stations, we made minute records of the birds observed. There were Mountain Bluebird, Kingbird, Chipping Sparrow, Song Sparrow, Fox Sparrow, Ducks and Teal of several varieties, Turtle Dove, Prairie Falcon, Red-tailed Hawk, Marsh Hawk, Cooper's Hawk, Sparrow Hawk, Osprey, Crow, Flicker, Nighthawk, Kingfisher, Spotted Sandpiper, Ruffed Grouse, Magpie, Towhee, Cassin's Vireo, Warbling Vireo, Red-eyed Vireo, Robin, Lewis' Woodpecker, Cabanis's Woodpecker, Northern Pileated Woodpecker, Clark's Nutcracker, Wood Pewee, Pine Siskin, Red-breasted Nuthatch, Catbird,

Chickadee, Western Evening Grosbeak, Western Tanager, Redstart, Yellow Warbler, Audubon's Warbler, Lutescent Warbler, Killdeer, Purple Finch, Pygmy Nuthatch, American Crossbill, Great Horned Owl, Short-eared Owl, Western Yellow-throat, and some others whose identity we could not sufficiently prove and which, therefore, we did not record. Some birds which we expected to find we did not see. For instance, the Oregon Junco, which is common at Spokane, both summer and winter, may have been present on our line of travel but we failed to see any. We saw no Goldfinches until we recrossed the Columbia River on our way home.

While we stopped at Keller about the middle of the afternoon, to obtain fresh supplies, a flock of 300 to 400 Nighthawks, or 'bull-bats' as the natives call them, passed overhead on their way south. They were weaving back and forth through the air in pursuit of insect prey but with a general southern trend. This flock must have included the entire Nighthawk population of the Sans Poil valley, as we saw no others until we were descending the Kettle River below Grand Forks. At Keller, also, Crows were very numerous, flying about in flocks, perching on tall pines, cawing and making much ado, as if preparing for the fall migration. We observed probably a thousand. As we proceeded up the valley, many stragglers were hastening to join the main body. Kingfishers were abundant, going in pairs or more, and being much in evidence all the way up the stream. Ruffed Grouse in flocks frequently crossed our path, whirring away into the thickets at our approach. There were hundreds of Pine Siskins feeding by the roadside on the thistles and other seed-producing plants. Lewis' Woodpeckers were unusually numerous. The Northern Pileated Woodpecker, with its great flaming red crest, is becoming scarce, being found mostly in the wilder regions where they are undisturbed by human contact. They should be pro-

tected as they feed on the borers and other insect enemies of the forest trees. The Western Evening Grosbeaks generally breed further north and we do not find them very often in Washington before November. There were 15 in the flock we saw, probably two families, feeding on the hawthorn berries beside the Sans Poil River. The Lutescent Warblers, of which we saw 12 in a flock, are also of infrequent occurrence, in our experience, in the vicinity of Spokane, as they breed mostly in the Pacific Coast district, west of the Cascades from California to Alaska. The Owls, being night prowlers, we did not see, but their familiar hooting was heard and recognized every night in the vicinity of our camp.—WALTER BRUCE, *President of the Spokane Bird Club, Spokane, Wash.*

Birds from a Sleeping-Porch

My indefinite confinement to bed, on a sleeping-porch, has enabled my already awakened interest in birds to grow into a veritable hobby. An outlook over lawn, mountain, and lake has, with the aid of a pair of Audubon field-glasses, given me opportunity to pass many pleasant hours in studying the bird-life about me.

Since July 1, I have noted, beside the Robin and ubiquitous Sparrow, the following: Chipping Sparrow; pair of Cedar Waxwings; Maryland Yellow-throat; Barn Swallow; Purple Finch; Wood Pewee; Kingbird; Red-eyed Vireo; Kingfisher; Nighthawk; Barn Swallow; Hairy Woodpecker; Downy Woodpecker; Goldfinch; Hummingbird; flock of Bronzed Grackles.

On July 3, one pair of Waxwings apparently commenced nest-building, for I had glimpses of them at the foot of a small spruce tree, tugging at the long, coarse grass about its base, and breaking off tiny twigs. The nest was evidently nearby, past the corner of the house, where, unfortunately, my range of vision was cut off, but I have been aware of their gracious presence by the hushed, sibilant whistle of the male, sitting *en garde* during the day.

On July 23, a row of five baby Barn Swallows clung to a nearby telephone wire

throughout the morning, anxiously watching and calling to their parents circling and coursing above them. There appeared to be no discrimination in the distribution of rations, though there was a great amount of rivalry and pushing when a parent bird swooped low and with a quick thrust placed a tidbit into the nearest gaping mouth. Occasionally one impatient fledgling would wobble off his perch to meet the old birds in the air. Before the morning was over all the young had taken to their wings, with an amazing grace and aptitude, differing from the parents only in a certain shakiness and lack of complete abandon.

The Chippy babies (only two, as far as I can discover), on August 2, graduated from the nest, and made their presence known by continuous, plaintive squeaking. They sat in low bushes against the house, only occasionally fluttering to the ground where they scuttled about, actually treading upon the parents' tails in their eager pursuit. The patience of the gentle Chippys seemed in no way impaired by this indignity, though they usually coaxed them back to the safer seclusion of the bushes.

It is delightful, before sunrise, to hear the birds commence their matins. First, from the woods comes the Wood Pewee's sweet, sleepy call, then, the Chippy begins his faint trilling, followed by the round, familiar carol of the Robin. Birds, by the way, seem to stir more during the night than is commonly supposed. I have frequently heard them call or twitter in the quiet hours of darkness.

On August 5, a large flock of Bronzed Grackles invaded our premises, gathering, no doubt, for their fall migrations. It was amusing to see the intrusive English Sparrows making themselves as small and inconspicuous as possible, keeping an almost respectful eye on the newcomers, so imposing in size, numbers, and volubility.

I should like heartily to recommend to all 'shut-ins,' an outdoor sleeping-porch, a pair of Audubon field-glasses, a bird-book, the Audubon bird charts, and an interest in the bird-life about one's windows, as a successful combination for dispelling the 'blues,' and an aid to health and contentment.—LOUISA BOYD GRAHAM, *Lake Placid, N. Y.*

An Illinois Yard

Lake Forest lies 30 miles due north of Chicago, on the shores of Lake Michigan. It is a suburb of winding streets, many trees, and much shrubbery, and is blest with an abundance of birds, permanent and migratory. A list of its feathered inhabitants and visitants may not *per se* interest the readers of BIRD-LORE, except in the same way that the writer was interested in the list of the birds seen in a South Dakota town (BIRD-LORE, Vol. XXIII, page 287), namely, in comparing the opportunities offered by one man's yard with my own, and in feeling that combination of envy and inspiration which another's experiences and observations always arouse.

My yard is less than an acre in area, with much shrubbery in and around it, and is set in the middle of the town. Its location provides it, as what location does not, with a number of advantages and a number of disadvantages as compared with other yards, some of my near neighbors', for example. It is too closely surrounded with houses and garages on the one hand, and on the other it is very near a bird-loving ravine. A food-shelf and a bath are set outside my study window, and forty-six different species have eaten from the one and drunk at or bathed in the other. A total of ninety-one different species have been seen within the confines of the yard, not including the many Geese that have flown overhead, sometimes nearly as low as the level of the chimney-tops, nor the many which remained unidentified. In the list that follows the headings are only approximate in many cases, as, for example, the Red-headed Woodpeckers may be entirely absent some winters, while the Robins and the Myrtle Warblers may be found all winter. Others have been seen in the yard but once, such as numbers 20, 21, 35, 38, 42, 53, 68, 80, and 85.

Permanent Residents.—1, Herring Gull; 2, Cooper's Hawk; 3, Screech Owl; 4, Hairy Woodpecker; 5, Downy Woodpecker; 6, Red-headed Woodpecker; 7, Blue Jay; 8, Crow; 9, English Sparrow; 10, American Goldfinch; 11, Cardinal Grosbeak; 12, Cedar Waxwing; 13, Tufted Titmouse.

Winter Visitants.—14, Evening Grosbeak; 15, Purple Finch; 16, Redpoll; 17, Tree Sparrow; 18, Slate-colored Junco; 19, Montana Junco; 20, Bohemian Waxwing; 21, Northern Shrike; 22, Winter Wren; 23, Brown Creeper; 24, White-breasted Nuthatch; 25, Red-breasted Nuthatch; 26, Chickadee; 27, Hudsonian Chickadee; 28, Golden-crowned Kinglet; 29, Ruby-crowned Kinglet.

Summer Residents.—30, Mourning Dove; 31, Yellow-billed Cuckoo; 32, Yellow-bellied Sapsucker; 33, Flicker; 34, Whippoorwill; 35, Nighthawk; 36, Chimney Swift; 37, Hummingbird; 38, Great-crested Flycatcher; 39, Phoebe; 40, Pewee; 41, Yellow-bellied Flycatcher; 42, Least Flycatcher; 43, Cowbird; 44, Meadowlark; 45, Baltimore Oriole; 46, Bronzed Grackle; 47, Song Sparrow; 48, Towhee; 49, Rose-breasted Grosbeak; 50, Scarlet Tanager; 51, Barn Swallow; 52, Red-eyed Vireo; 53, Yellow-throated Vireo; 54, Solitary Vireo; 55, White-eyed Vireo; 56, Yellow Warbler; 57, Catbird; 58, Brown Thrasher; 59, Bewick's Wren; 60, House Wren; 61, Wood Thrush; 62, Robin; 63, Bluebird.

Migrants.—64, White-crowned Sparrow; 65, White-throated Sparrow; 66, Fox Sparrow; 67, Black-and-White Warbler; 68, Blue-winged Warbler; 69, Nashville Warbler; 70, Tennessee Warbler; 71, Cape May Warbler; 72, Black-throated Blue Warbler; 73, Myrtle Warbler; 74, Magnolia Warbler; 75, Chestnut-sided Warbler; 76, Bay-breasted Warbler; 77, Blackpoll Warbler; 78, Blackburnian Warbler; 79, Black-throated Green Warbler; 80, Palm Warbler; 81, Prairie Warbler; 82, Ovenbird; 83, Water-Thrush; 84, Maryland Yellow-throat; 85, Yellow-breasted Chat; 86, Wilson's Warbler; 87, Canada Warbler; 88, American Redstart; 89, Veery; 90, Olive-backed Thrush; 91, Hermit Thrush.—GEORGE ROBERTS, *Lake Forest, Ills.*

Winter Birds at Waterford, N. Y.

The winter of 1922-23 was not abnormally cold, but it was a season of heavy snow—over 160 inches at Waterford, Saratoga County, N. Y.

'The Seasons' department of BIRD-LORE

and the Christmas Census show a northern wintering of Purple Finches: three flocks, totaling 100 individuals, remained here the whole winter—the first record locally of this species during winter.

Pine Siskins were abundant the first half of the winter, but after February 15 they migrated and Redpolls took their place; over 500 Redpolls were seen in one flock during March.

A male Flicker arrived with a two-day thaw, the middle of January, and remained. (The first migrant Flicker usually arrives March 21.)

Only one Snow Bunting was seen and no other boreal birds—surely the weather had no influence on bird-life in this section!—
EDGAR BEDELL, *Waterford, N. Y.*

First Finding of the Yellow-crowned Night Heron in Connecticut

It does not often fall to the lot of the average bird student to add a new bird to the list of known birds of his state, and especially in a state as old and where the bird-life is as well known as in Connecticut.

The Yellow-crowned Night Heron is not mentioned in the 'Birds of Connecticut,' nor can I find any record of its occurrence since

the writing of this book, before April 21, 1922, when a mature bird of this species was given to me, having been picked up in an exhausted condition two days before.

There were no visible injuries, but it refused frogs and other supposed Heron luxuries and died on April 23, 1922.

The bird is in fine plumage, though the term 'Yellow-crowned' is misleading, in that there is no distinct yellow, the head markings being a soiled white. It is mounted and in the Museum at Birdcraft Sanctuary, the home of the Connecticut Audubon Society, at Fairfield, Conn., where it may be seen.

This first record of the Yellow-crowned Night Heron in Connecticut takes on added interest by the finding of a second specimen the past summer at Southport, Conn., by Mr. Milton Lacey, and only ten miles from where the first was found.

It may be significant that two of the five New York records for this Heron are in April and one in May, which may show a different 'straggling habit' from the Egrets which move north after the breeding season.

A photograph of the bird while still alive and another after mounting shows the heavy bill and unmistakable head markings.—
WILBUR F. SMITH, *South Norwalk, Conn.*

Yellow-crowned Night Heron in Connecticut

On August 11, 1923, while passing down Mill River, in Southport, I observed a strange bird feeding on the tidal flats of the river at a point about a half mile back from the Sound. These flats are commonly frequented by the Green Heron and Black-crowned Night Heron in considerable numbers, but this bird, though of the Heron family, was neither of these. After careful study of the bird with glasses on this and frequent subsequent occasions, it was positively identified as a Yellow-crowned Night Heron. This, I believe, is the second Connecticut record for the species.

The confusing feature at first was the top of the head which lacks the characteristic buff patch of feathers, it being, so far as can be seen, entirely dark with the exception of a mere trace of a whitish spot on the crown.



MOUNTED SPECIMEN OF YELLOW-CROWNED NIGHT HERON

Photographed by Wilbur F. Smith

As a mounted specimen of this species has been loaned to me for study, I have been able to check up the markings and find they tally in all respects except as above stated. This seems worthy of note as none of the various works I have consulted describe a phase of plumage agreeing with this.

This bird allows quite near approach, being less easily alarmed, if anything, than the Black-crowned. It is by no means confined to nocturnal habits, as it feeds constantly upon the river flats each day when the tide is out. Its carriage is more erect and more graceful than that of the Black-crowned Night Heron. It feeds in the same manner as the other Herons but keeps quite aloof from them. The bird at the date of writing is still to be seen daily strolling about on its chosen feeding-grounds in a dignified and leisurely manner, apparently with no idea of leaving.—MILTON S. LACEY, *Southport, Conn.*

The Ways of Jays

I had such a curious little adventure when I was in the Yosemite Valley last summer. Every day we used to see many of the Blue-fronted Jays, handsome, inquisitive creatures with high crests. Bold and noisy they were, always hovering about the tents to see if there was not something they could steal. One day, when I walked over to Happy Isles, a Jay flew by me, carrying something in his bill. He alighted on a branch near by and when he saw I was watching he acted almost as if he were embarrassed and immediately dropped his plunder.

It proved to be a little oval box. I opened it and there, to my surprise, was a lip-stick!

I put the lower half of the box, with the lip-stick in it, down on the ground and then retired. Back came the bold robber and I saw him pecking about the spot. He soon flew off and although I could not see that he was carrying anything there was no lip-stick in the box or anywhere about.

Would not the damsel who lost her vanity stick have been astonished to hear of its later possessor? Perhaps he was tired of being a blue Jay and wanted a change of color!—MARGARET E. COGSWELL, *Cambridge Mass*

Pine Siskin in Alabama in the Winter of 1922-23

My first record of Pine Siskin during this period was that published in BIRD-LORE's bird census for Christmas, 1922. The next records are of a single bird February 7, 1923, and five seen February 14. On the same day, others were heard on the lawn of the Weather Bureau grounds. Most of the succeeding records were made at the same place. During late winter and early spring there is an abundance of dandelion and chickweed on this extensive lawn, and the Siskins were feeding on the seeds of both plants seemingly with equal relish. On March 8, two flocks of three to five Siskins were seen; March 21, 8 were seen feeding with Goldfinches and Chipping Sparrows; after the 21st, numbers varying from 5 to more than 100 were seen daily, the numbers increasing from that time till about April 1. They were present in numbers through April, diminishing in numbers about May 1. The last record was on May 11.

They were the most approachable birds I have ever studied. It was easy to get within 4 feet of the compact flock before it took flight. At one time, while watching one eat out the seed of a dandelion within 3 feet of where I stood, I was thrilled when it finished and came within a foot of my feet and cleaned out another dandelion head; after finishing that it passed to the rear within 3 inches of my left foot.

There is considerable variation in the amount and intensity of the yellow and yellowish color on wings and rump. It is best observed as a nearby bird takes flight.

They never seemed nervous while feeding, but fed in rather compact and usually small flocks, not mixing with Goldfinches and Sparrows on the lawn at the same time. Holding the stem or stalk in one foot, the Siskin quickly removed the seed, nipping the pappus off, and with a flirt of the head throwing it aside. Nothing edible was left of any dandelion head that I examined after a visit of the Siskin. As food was abundant I made no attempt to furnish food for them.

The alarm- or call-note heard whenever the birds took flight was recorded *tit-i-te*, *tit-i-te*, several times in succession; sometimes

the notes were smoother *see-a-wee*. On March 22, a new note was recorded, *z-z-z-z-z* (a prolonged *z*), weak, as are all the notes and the song, but rather harsh. The *z* notes seem to be a part of the song, "a weak, prolonged chittering performance interspersed with the louder *z-z-z-z-z* notes." The song was heard first on March 24 and was heard daily thereafter. It suggests the song of the Goldfinch but has less energy and is not so loud; one is reminded also of the song of Purple Finch.

Since writing the outline of these notes I have read an interesting report in *The Wilson Bulletin*, June, 1923, pages 111-112, of the banding at Auburn, Ala., 75 miles south of this station, of 99 *Pine Siskins* this season. It seems that the banding ceased only when the supply of bands was exhausted.—R. H. DEAN, *Anniston, Ala.*

Cedar Waxwing Visitors

On March 18, 1923, we were having a bad blizzard, with the mercury going down all day (and my spirits dropping accordingly). It was the Sabbath and I spent almost the entire day trying to keep the snow off of the feed-shelves, for the Robins and Bluebirds were here, and were panic stricken by the storm. One of my shelves is fastened against the house and another runs on a trolley out from my kitchen window, so I did not have to go out-of-doors.

About 4 P.M., when the mercury had reached the zero mark and I was about as 'panicky' as the birds, I made one of my numerous trips to the window, and I wondered if my concern for the birds was making me 'see things,' for there, in a magnolia shrub about 10 feet from the window was a flock of about 15 birds which at first, through the snow, looked like female Cardinals, but in a second I saw they were Cedar Waxwings. They are not at all common here, and I had never seen one in town before. These only stayed a few minutes and did not find any of the feed, so I supposed I had seen the last of them. But on April 10, after another sharp, cold spell, I heard some new bird-notes, and on investigation found it was the Waxwings again drinking sap which was running down the trunk of a hard maple tree.

I immediately phoned for the other bird students in town to come, and we spent the forenoon watching them. They stayed, most of the time for several days on that tree before they seemed satisfied. And now comes the information which may benefit some other bird-lover. I puzzled my brain over what I could feed them, and finally I thought of a huge winter bouquet of bitter-sweet berries. I had been intending to throw them out, but instead, I fastened them on a pergola, and what was my joy when the Waxwings found them the very next day, and almost all of their time for the next two weeks was spent near that pergola.

Occasionally they would go away for an hour or so, and then I was almost sure to have a telephone call from some corner of town, describing a flock of birds which had been seen and asking what they were. After the bittersweet berries were gone I opened a can of cherries, and the birds were so tame by this time that I could go quite close to them and toss a handful of cherries on the ground, and they would go right after them. Altogether they stayed around for about a month, then finally drifted away.

The subject of feeding prompts me to ask if other bird-lovers know that almost all of our summer and winter birds are very fond of cheese. Every morning of the year I prepare a large dish of feed and in it I always put some cheese, cut up fine, and as long as it lasts, every bird, excepting the Cardinal and the Rose-breasted Grosbeak, will take that in preference to anything else. The Catbirds, Brown Thrashers, and Robins are especially fond of it and take all they can carry away to feed their young.—MRS. J. F. KYLER, *Kirkwood, Ills.*

Nuthatch Wisdom

During November, a pair of White-breasted Nuthatches came to the side kitchen porch where a large sunflower head had been left to dry on a little bench. Watching through the glass door, we saw that they were carrying away the good seeds (of a large striped variety) and casting down all false ones. We became interested in their industrious

actions, and saw them fly repeatedly, back and forth, from sunflower to a locust tree, about twelve feet away. As there was a smooth-barked butternut tree on one side of the locust and a pear tree on the other side, we wondered why they chose the locust. On watching we saw them force the seed beneath the rough bark pounding it in with their bills, so we concluded they were storing the seed for future use, but on investigating we found only the husks, or outer covering were under the bark. Evidently the bark served as a vise for holding the seed. From the window, the tree had a peculiar aspect: it was dotted with tiny white spots, all up and down the trunk, where the husks stuck out, and there were some on the ground. The birds generally came at our regular meal-time. While we were cooking inside, they were busy outside, and were so tame we could approach them within 5 feet and not frighten them away. It took about ten days to empty the sunflower.—LEDA W. CHACE, *Lawrenceville, Pa.*

Electrocution of a Kinglet

A gentleman in charge of the town of Winthrop's electric lighting system found that there was a short circuit in one of the transformers used on the line. Climbing the pole on which the nonfunctioning instrument was located, he found a tiny bird wedged against or within a small nook or corner of the transformer box. The bird, which was olive-gray with a bright red spot on the top of its head, lay in such a position that it touched two *live* wires bare of insulation at this point. A powerful electrical current had passed through the bird's body, thus electrocuting it and causing the 'short' in the wires.

The man who discovered the hapless wanderer had no idea of its name. He displayed it at a meeting of the town council, but none of the members present knew what it was. Some thought it was a 'wild Canary,' another guessed Hummingbird. Later, one of them described the bird to me and I told him it was our Ruby-crowned Kinglet, a common spring and fall migrant in Iowa. How the unfortunate Kinglet came to meet

death at this strange place is a subject for conjecture. Perhaps an uncertain evening flight took it there; at any rate, there was one Kinglet of the numerous band then passing southward that did not live to finish the October, 1923, migration.

The Ruby-crowned Kinglet is only a migrant with us in Iowa, but it is usually present in good numbers, though a little more abundant in spring, I believe. This diminutive feathered visitor is capable of a surprising volume of song. I have often been astonished to hear so much music emanating from so small a form. Jumping from twig to twig in his search for insects, never stopping a minute, the male gives the delighted listener a varied and lengthy warble, sweet and full of tone. At irregular intervals he opens the feathered tract on his head and displays the beauty spot which has given him his name. We also have the Golden-crowned Kinglet as a migrant, but I have never heard it sing.—FRED J. PIERCE, *Winthrop, Iowa.*

A New Jersey Mockingbird

On the 15th of September, this year, a Mockingbird was observed at Bay Head, N. J., on the sand-dunes immediately south of the town. Its actions were sluggish and ample opportunity was afforded for observation of the white on its wings and tail. I believe it is unusual in this section.—HENRY H. COLLINS, III, *Bryn Mawr, Pa.*

The Mockingbird's Winter Song

I have wondered how many of your readers have heard what I call the 'winter song' of the Mockingbird.

Not his rollicking notes of the nesting season, but sitting quietly hidden in a tree, he sings all his imitations of other birds, only much lower, the notes running together and not emphasized as usual. It is very sweet and beautiful to hear. I first heard this three years ago, in December. I was working near my barn, when from a thick tangle of plum and wild grape-vines I heard beautiful bird music. At first I could hardly believe my ears, so I went nearer and found it was a

Mockingbird. He sang from the same place from one to two hours, long continuous warbles of songs, in a low, sweet tone, with now and then a pause of several minutes. I have heard this same delightful music three winters now, and once in August this year.—FRANK ARKIN, *Decatur, Ills.*

Flicker vs. Robin

I have reason to believe that the Flicker is not deserving of all the praises given him. Recent observation would tend to show that not only is he not the fine bird that he is painted, but that occasionally he becomes a tyrant and a marauder in the bargain. Armed with a sharp beak and a powerful body, he is able to beat off his weaker adversaries.

A short time ago, I watched a Flicker kill a Robin in a wholly one-sided battle over the possession of a morsel of food. While the Robin was eating, the Flicker swooped down,

and snatched the food from under his very beak. As the Robin hopped back to view the stranger who so rudely interrupted his meal, the Flicker came down upon him and pecked him, and beat him, and clawed him until life was extinct.

It was only a day or two ago that I watched another combat between a Robin and a Flicker. The Flicker swooped down as before, intending to seize the Robin's food. This Robin, however, showed fight and the two went at it like cocks in a cock-pit. The Robin relied solely upon his beak and wings while the Flicker struck out with his feet. Finally the Robin flew away, beaten, and without his breakfast.

Never once in a description of a Flicker have I run across the mention of any bad traits such as these. I would like to know if these occurrences are unusual or whether the Flicker is really a vicious bird.—ALAN TAYLOR DEVOE, *Duryea Road, Upper Montclair, N. J.*

THE SEASON

Edited by J. T. NICHOLS

XL. August 15 to October 15, 1923

BOSTON REGION.—The latter part of the summer and the early autumn were very dry and cool, but to date (October 15) there has been no widespread frost; two of our delicate indicators of frost are unblighted—the salvia in our gardens remains scarlet and green, and the jewel weed (*Impatiens*) of the swamps still retains its leaves.

Mr. Forbush says of the month of September, in his current 'Items of Interest,' "The winds have been mainly light and many of the days and nights clear—ideal weather for bird migration." Perhaps the most notable event occurring during the migration was the appearance, in September, of large numbers of Red-bellied Nuthatches. The high, nasal, tooting call of these little birds sounded throughout the countryside and was especially noticeable in the early morning. In favorable localities, a dozen or more of the birds could be found together, as on September 30, in a pitch pine grove iso-

lated in the Ipswich sand-hills (Dr. C. W. Townsend and W. M. T.).

Another conspicuous autumnal movement was the passage of immense numbers of Blackpoll Warblers through this region; there has been no such migration of these birds here for years. During September they were everywhere, both in the country and in the town centers, and their presence raises the questions: Where have these birds been of late years? How have they passed south without our seeing them? A possible explanation is found when we bear in mind that here in Boston we are on the extreme eastern edge of the migration route for the land-birds, and that even a slight swerving away from the ocean would greatly diminish the number of our birds of passage.

About the first of October, a group of birds whose presence is characteristic of this time of year, overran the country in unusual numbers. This group comprises the Bluebird,

Myrtle Warbler, Slate-colored Junco, and White-throated Sparrow—the first three species occurring in open country, gardens, and orchards, the last gathering in flocks, most numerous in wooded swamps and thickets.

Mr. Forbush reports (loc. cit.) a few Evening Grosbeaks in mid-August in southern New Hampshire, and a small flock early in September in eastern Massachusetts—a very remarkable observation.

The annual meeting of the American Ornithologists' Union, held this year in Cambridge, afforded us local students the pleasant opportunity of meeting many visiting ornithologists, and it was a great satisfaction to us that during the week of October 8-12 the country about Boston presented a picture of autumn, "Season of mists and mellow fruitfulness," in its highest beauty.—WINSOR M. TYLER, *Lexington, Mass.*

NEW YORK REGION.—At the close of this period some trees were red or yellow, a few already quite leafless, but near the city most were still well leaved and green.

The movement of shore-birds and Terns along the coast, in late August and September, was considerable, and several species of unusual interest observed, mention of which is made later.

The Red-breasted Nuthatch became common and generally distributed in September, and there was a marked movement of Chickadees the end of that month and early October, evidenced by their appearance in unaccustomed localities. Waves of fall transients followed one another in accustomed sequence. Thus, at Garden City, L. I., on September 30, the writer awoke to find the Myrtle Warbler plentiful, with Juncos, White-throated Sparrows, and migrating Phœbes which had arrived the preceding night, and within the next few days added his first Golden-crowned Kinglets and Creeper to the above. The Blackpoll Warbler, plentiful since the first leaves began to fall, was still present in small numbers among the more numerous Myrtle Warblers on October 14, when a Solitary Vireo also was observed in subdued song.

The publication, by the American Museum

of Natural History, of a handbook of the 'Birds of the New York City Region,' by Ludlow Griscom, is an event of considerable importance to local students. Annotations therein form a basis on which observers of the future may build to advantage, and will prove most useful for comparison with a New York region seasonal report.

On September 3, at Mastic, L. I., the writer had the good fortune to observe a juvenal Forster's Tern, an exceedingly tame bird, perched on a buoy. It was in the plumage pictured by Audubon—bold black stripes on side of head, widely separated one from the other by white forehead and pearl-grey nape—a slightly larger, heavier bird than the Common Tern, with a different note. Mr. Wm. T. Helmuth, at Mecox Bay, L. I., during the present migration successfully observed a Long-billed Curlew, proving that species also to be still at least of casual occurrence on Long Island. Mr. Helmuth also met with a Buff-breasted Sandpiper and Curlew Sandpiper, the last an accidental visitant from Europe, which proved to be a bird of the year. He found the Baird's Sandpiper less rare than usual in our region, corroborated by reports from other observers.

There are several instances of single Mockingbirds observed along the south shore: Jones Beach, August 26 (Griscom, Boulton, and Carter); Fort Pond, Montauk, September 17 (R. C. Murphy); one at Montauk and later one near Easthampton (Helmuth). Probably there were more transients than usual of this species. September 17, it may be noted, is a latest date for such, and there are no records that Long Island wintering birds establish themselves before about October 1.

The writer noticed an Oven-bird at Garden City on October 4, late. Mr. H. F. Stone records three Lesser Yellowlegs at Lawrence, on October 12, the latest Long Island record but for a casual date the end of that month. Mr. R. H. Howland observed a House Wren at Upper Montclair, October 14, the latest date for the New Jersey section. If the weather continues open, it would seem that other small land-birds are likely to make late records in the next period.

Do some individual birds move on a schedule remarkably constant as to date?

Coincidences, such as Brown Thrasher 57,813, banded by B. S. Bowdish, July 22, 1922, retaken July 22, 1923, suggest the examination of banding data in the light of such an hypothesis.

An interesting item from bird-banding on the Robin, Upper Montclair, is furnished by Howland. From March 22 to June 14, 14 Robins, of which 4 were returns from the season of 1922, were taken in his traps, and 8 of these 14 repeated an average of two and one-half times each prior to June 14, though only one after June 1. From June 14 to October 9, 134 Robins were trapped (25 in June, 56 in July, 35 in August, 13 in September, 5 in October), of which 106 were definitely juvenals; but out of the 134 only a single bird repeated, taken in the evening and again the following morning. The conclusion is obvious that from mid-June through August, and to a less extent in September and early October, Robins were continually passing through, of which the great majority were birds of the year.—J. T. NICHOLS, *New York, N. Y.*

PHILADELPHIA REGION.—The unusual abundance of shore-birds was the most noteworthy occurrence of the late summer. Between August 15 and September 1, 23 species were observed. Hudsonian Curlew, Willets, and Knots were the species which impressed one as being more common than for many seasons.

A day's investigation by row-boat, back of Brigantine Island, N. J., with Messrs. Yoder and Gaede, August 19, resulted in the following interesting list of water-birds: Herring Gull, 30; Laughing Gull, 200; Common Tern, 60; Least Tern, 2; Black Tern, 100; Black Skimmer, 200 + 50 to 100 young in all stages of development from eggs to birds on the wing; Black Duck, 10; Great Blue Heron, 40; Little Blue Heron, 1; Green Heron 20; Black-crowned Heron, 1; Clapper Rail, 2; Pectoral Sandpiper, 5; Least Sandpiper, 10; Semipalmated Sandpiper, 200; Yellowlegs, 2; Spotted Sandpiper, 10; Willet, 5; Hudsonian Curlew, 100; Sanderling, 10; Dowitcher, 2; Knot, 100; Black-bellied Plover, 10; Killdeer, 1; Semipalmated Plover, 300; Piping Plover, 4; and Turnstone, 10.

A small mud-rimmed pond, entirely in the city limits of Camden, attracted numbers of waders. On August 26, the muddy edge was alive with them. Among the smaller Sandpipers a Baird's was discovered. When seen by itself this would be a difficult bird to identify, but when associated with other Sandpipers of the same general appearance, Least, Semipalmated and Pectorals, as it happened on this particular occasion, it is a comparatively easy matter after eliminating the White-rumped Sandpiper. On August 28, in addition to Baird's, a Stilt Sandpiper was present, together with a Dowitcher, Wilson's Snipe (early fall record), Upland Plover in a dry field nearby, and many commoner waders. In all, thirteen species of shore-birds were noted in this little half-acre pond in two days.

A very heavy flight of Hawks was reported from Cape May, N. J., September 10. Hawk-shooters were out to greet them and secured some 900 birds during the day. Most of the Hawks were Sharp-shinned, with a scattering of other species. As usual, when a big flight is on, the wind was northwest.

Hawks observed at this point on September 16, wind north, were Marsh Hawk, 10; Sharp-shinned, 100; Cooper's, 5; Red-shouldered, 1; Broad-winged, 1; Pigeon, 4; Sparrow, 3, and Osprey, 6. September 23, Marsh Hawk, 50; Sharp-shinned, 50; Red-shouldered, 1; Pigeon, 10; Sparrow, 10; Bald Eagle, 1; Osprey, 30; wind northwest. Many other species of birds were very abundant on this date. Laughing Gull, 1,500; Tree Swallow, 500; Red-breasted Nuthatch, 30; Brown Creeper, 100 (6 noted on the trunk of one tree at the same time). Mr. Gillespie reported that Brown Creepers were very common at Glenolden, Pa., on this same date.

Laughing Gulls have been very common on the Delaware River here at Philadelphia. They first appeared September 19 (3 seen), and have been noted almost daily since then, in loose roving flocks of 10 to 30 individuals. Possibly they have been attracted by the great numbers of small fish which have been killed, no doubt by heavy oil-pollution.

The fall wild-fowl flight does not, as yet, seem to be very far advanced. Two Blue-winged Teal, Camden, N. J., September 13;

a line of 30 Scoters, Cape May, N. J., September 30, and a Ruddy Duck at the same place, October 7, are the only migrants so far noted. Resident Black Ducks are reported abundant.

Some other interesting records for the season are: Connecticut Warbler, City Hall, Philadelphia, Pa., September 18, (Gillespie); Egret, Torresdale, Pa., September 16 (Yoder and Gaede); White-crowned Sparrow, Cape May, N. J., September 30, (Potter).—JULIAN K. POTTER, *Camden, N. J.*

WASHINGTON REGION.—About Washington, as elsewhere, the autumn does not seem to be so attractive to bird observers as is the spring. During the former season most of the birds are, of course, not in song, and, furthermore, many species, like the Warblers, are largely in obscure plumage and therefore difficult to identify in life. Because of these conditions, fall records are notably less numerous than those of the spring. There is, consequently, much work yet to be done during the post-breeding season on both migration and the general habits of birds about Washington.

During the months of August and September of the present year (1923), weather conditions were about normal, and there has been little of special note ornithologically.

The Red-breasted Nuthatch appeared on time this fall, and we trust will again become common this winter. It has not been so here for the last two or three years. The Wilson Thrush was noted by Miss M. T. Cooke on August 25 at Chain Bridge, D. C., which calls to mind the fact that very few records of this bird during recent years have been obtained before the second week in September. This, again, is possibly due to the lack of observers in the field during the early autumn migration.

Nighthawks passed through this region in rather unusually large numbers on September 6 and 7, and this migration was reported from both the vicinity of Washington, D. C. and Alexandria, Va.

Chimney Swifts to the number of 2,000 or more were seen on September 22 entering a chimney in the southern part of the city of Washington for the purpose of roosting. This occurs in Washington every year, some-

times in more than one place in the city, and there seems to be considerable shifting of the roosting-place for the bulk of the individuals of this species. A roost in a chimney of one of the buildings of the Department of Agriculture has been used more or less by small numbers of birds for a number of years past.

The roosts of the Purple Martin in the city of Washington, which have been found for several recent seasons, have not been located during the present year. From the movements of the birds early in the evenings this summer it is evident that the roost was situated either in the city or in the immediate vicinity; but, unfortunately, no observations have been possible, although search for the roost was made by several persons.—HARRY C. OBERHOLSER, *Biological Survey, Washington, D. C.*

OBERLIN (OHIO) REGION.—The latter part of August and the first part of September witnessed the coldest weather we have had this fall. The latter part of September and October up to date has been warm and summerlike, inducing many birds to remain beyond their customary limits. However, August had the coolest weather for that month in many years. Except for the first part of September, when a great deal of rain fell, there has been but little wet weather this fall. The morning of October 7 saw the first heavy frost, although less severe ones had occurred earlier.

The Nighthawks, as usual, became common during the last of August, probably reaching their greatest prominence on the 25th, and then diminishing in numbers until the last one was seen on September 1. Sanderlings were seen on the lake-shore the 25th, a Black and White Warbler on the 26th, and a few Blackpolls on the 28th. The Spotted Sandpiper, which usually remains until the middle of October, disappeared this year on August 19. As several observers have not noted any since, it is probable that the abnormally cold weather of late August drove them south.

The first week of September brought in several new migrants—Magnolia and Black-throated Green Warblers, and Olive-backed Thrush on the 2d; Wilson, Nashville, Cape

May, and Blackburnian Warblers on the 5th. On the 8th, at Bay Point, several species of shore-birds were seen in good numbers. They were all congregated on a muddy flat where food could be easily obtained. It was a blustering, cold, wet day, and the wind swept fiercely across the point, but the Sandpipers seemed not in the least concerned. They allowed one to approach within a very few feet, and were so tame that it was with difficulty that they were induced to fly even a few paces. Among them were identified Pectoral Sandpipers, driven from their more favored grassy marshes by the dryness, Least Sandpipers, Semipalmated Sandpipers, Sanderlings, Yellow-legs, Ruddy Turnstones, and Semipalmated Plovers. A large number of Caspian and Common Terns, Ring-billed and Herring Gulls were also present, and a few early Black Ducks and Blue-winged Teals were seen flying around. A single Pied-billed Grebe was found in a nearby pond.

On the 9th, in the same general locality, the Water-Thrush, Tennessee, Black-throated Blue, Northern Parula, and Bay-breasted Warblers were seen for the first time, while the Veery, Louisiana Water-Thrush, Purple Martin, Traill's Flycatcher, and Yellow-billed Cuckoo were seen for the last time. On the 16th, Red-breasted Nuthatches and Rusty Blackbirds made their appearance and the Northern Yellow-throats and Cerulean Warblers left. On the 22d came the Chestnut-sided Warbler and Yellow-bellied Sapsucker, and on the 23d, the White-throated Sparrow and Junco. The Red-headed Woodpecker and Wood Pewee left on this date. The Golden-crowned Kinglet has been common since its appearance on the 25th; the Ruby-crowned came on the 30th, along with Brown Creepers, Purple Finches, White-crowned Sparrows, and Hermit Thrushes. The 30th is also the last date for House Wren, Oven-bird, and Scarlet Tanager.

October 6 witnessed the appearance of the first Myrtle Warblers, and the 7th, the first Fox Sparrow. A Wilson Snipe was flushed on the 12th, and a single Tree Sparrow was seen on the 13th. The 13th was the occasion of a trip along Lake Erie, including marshes near Cedar Point and Rye Beach. It was found

that very few Ducks had as yet made their appearance. About thirty-five Black and a single male Mallard were all the Ducks seen. The Ring-billed Gull, however, was common, several Barn and Tree Swallows were seen, and a flock of Common Terns was found, although it is later than they usually remain.

Reviewing the migration thus far, it seems that the cool weather of the first part of the season induced the early migrants to move about their usual time and in their usual numbers, while the warmer weather following has tended to keep some of the summer birds longer than usual, and to prevent some of the later migrants coming south as early as is their custom.—S. CHAS. KENDEIGH, *Oberlin, Ohio.*

CHICAGO REGION.—With the exception of the first four or five days of September, the past two months have been composed of fair and usually warm days. A very light frost in the first week of September was followed by warmer days, which have continued until well into October.

Perhaps it was this combination of dry and fair weather which was responsible for the many bird-songs heard in the autumn migration. At any rate, observers here agree that they have heard more songs from south-bound migrants than in previous years. Songs of Sparrows and Warblers especially were noted.

The shore-birds have been more difficult to watch this fall on account of the changing beach conditions in and about the city. On August 18, Mr. Gault reported from Lincoln and Grant Parks, Least and Semipalmated Sandpipers, Sanderlings, Solitary and Spotted Sandpipers, Semipalmated Plovers, and Ruddy Turnstones. None were found in large numbers. On August 30, no Turnstones were found, but all the other species were present in equal or increased numbers. Piping Plover was reported from Beach, Ills., August 26 (Mr. Hunt). Sanderlings, Semipalmated Sandpipers, Semipalmated Plovers, and Killdeer were seen by the writer at Grant Park on September 8, and, with Least Sandpipers were reported from Lincoln Park on September 11 and 16. The Sanderling flock increased as the other species diminished,

and at the writer's last visit to Lincoln Park he saw 50 Sanderlings, a Killdeer and a Semipalmated Plover. This was on October 11. An interesting visitor was the Hudsonian Curlew, reported from the Indiana Dunes on September 15 (Mrs. Richardson).

Gulls and Terns have been present on the lake in their usual numbers. Bonaparte's Gulls became common very early in September and were soon joined by Ring-bills and Herrings. All three of these Gulls can be found in this region at almost any time during the year, the Herring Gull being found most commonly. The birds found during the summer are, of course, chiefly immature. Common Terns were last reported September 22 and Black Terns on the 11th. The Caspian Tern was reported from Lincoln Park, September 11. On the 16th, one Franklin's Gull was seen; another was observed on October 7, and by the 11th at least three were present in the Lincoln Park Gull flock.

The Warbler migration has been very well observed and recorded, records including Golden-winged singing at Glen Ellyn, August 25; Blue-winged, and Yellow-breasted Chat, Jackson Park, September 7 and 8; and Orange-crowned, Miller, Ind., September 15. Tennessee Warblers were singing on October 8 at River Forest, and were reported from Lincoln Park on October 11. Mrs. Coffin, on September 2, found 16 species of Warblers in a small area in the dunes. Philadelphia Vireos were seen at Glen Ellyn on September 9, the White-eyed in the dunes, September 29 (Mrs. Cramp), and a Blue-headed Vireo, seen by Miss Bates on September 30, was singing.

Migrating White-throated Sparrows arrived nearly a week late. On September 22 only a few were present. White-crowns have been quite common, and both species have been in song. Vesper Sparrows at Miller, Ind., on September 15, were singing on the wing. Slate-colored Juncos were reported from River Forest on September 24; they are now quite common. Mrs. Coffin reports three Leconte's Sparrows from Roby, Ind., September 29. Harris's Sparrows were seen at Jackson Park on October 2 and 10. This Sparrow has appeared regularly during the last five years, and its status appears to have

changed from that of rare visitant to regular but uncommon migrant. Most of the birds seen have been in the immature plumage, and they are usually in the company of immature White-crowns.

The migration of Brown Creepers, Kinglets, and Thrushes has been entirely normal. An early Hermit Thrush was seen on September 7 and a rather late Olive-back on October 10. Red-breasted Nuthatches have been seen at Glen Ellyn, August 29; Lincoln Park, September 22, and Jackson Park, September 29. This erratic little fellow seems quite common in some seasons and in others is extremely hard to find. As the writer is closing this report, a steady rain is falling, and a chilled Sapsucker in the poplars seems to mourn the brighter warmer days.—GEORGE PORTER LEWIS, *Chairman Report Committee, Chicago Ornithological Society.*

MINNESOTA REGION.—The cool weather of late July and early August continued throughout the remainder of the summer. During the third week of August it was exceptionally cool—"the coldest for the month of August for six years" (U. S. Weather Bureau). From the 22d to the 24th there were light frosts throughout the northern part of the state and locally as far south as Anoka. September was a changeable month, marked by exceptional cold and exceptional heat. After the first day, warm summer weather prevailed until the 7th when it turned cool and continued raw and disagreeable until the 21st. On the 12th and 13th the first frosts occurred at Minneapolis and there were flurries of snow farther north at Duluth and Hibbing. On the night of the 12th the temperature fell as low as 22° at points in the Red River Valley and eastward to Park Rapids, with killing frosts at Duluth. Ice formed as far south as Lake Mille Lacs. This unseasonable weather was part of an extensive cold wave that swept down from Canada over all the Middle West. The result was a marked and premature check upon vegetation and very soon thereafter the trees began shedding their leaves, some ten days or two weeks ahead of the usual time. During the last week of September, hot summer days returned, reaching a maximum of 87° at Minneapolis

on the 26th, the highest September record for ten years. The first two weeks of October were mostly typical Indian Summer weather, lazy, pleasant days with cool mornings and evenings, warm at midday and with a bluish haze in all the distance that veiled and softened and beautified the varied colors of the dead and dying foliage. On September 21, the fringed gentians were in full bloom and a few late asters and goldenrods still survived, but for the most part the season of flowers had passed. By mid-October the forests were nearly bare except for the russet and brown covering of the black and red oaks which hold their foliage even against the blasts of winter. Here and there a golden cluster of belated aspens and the yellow and green of the tardy birches lent a bit of vivid color to the fading landscape, while on the lowlands the clear green of the tamaracks was yielding at last to frequent frosty nights.

The return Warbler movement, which usually begins to appear in southern Minnesota early in August, was reported by several observers as much reduced in numbers this year. However, A. C. Rosewinkel, of St. Paul, who is much afield, has kindly supplied notes in regard to several species as follows: August 17 to 22, several Black-and-White Warblers; August 22, small flock of Chestnut-sided Warblers and several Black-burnians; August 23, Magnolia and Canada Warblers; August 28, Orange-crowned Warbler; August 29, Wilson's Warbler; and September 14, Parula Warbler. The same observer reports a number of Lincoln's Sparrows on August 17, several Yellow-bellied Flycatchers on August 28, "several silent flocks of Gray-cheeked Thrushes" on September 3, and Purple Finches, White-crowned Sparrows and a Blue-headed Vireo on September 4.

Mr. Frank Gillis, of Anoka, reports an early Olive-backed Thrush on August 17 and states that Kinglets of both species were more abundant than usual during early October.

Mr. Frank W. Commons who has been busy trapping and banding birds on his place at Crystal Bay, Lake Minnetonka, reports a considerable movement of Harris's and Lincoln's Sparrows during late September and early October; White-throats and Juncos

were abundant as usual, the former appearing about the middle of September; no White-crowned and but few Tree Sparrows; an occasional Fox Sparrow near the middle of October.

From August 31 to September 4, inclusive, the writer and Mr. Kilgore made a trip by automobile from Minneapolis to Pipestone and Lincoln counties in southwestern Minnesota and Lake County in South Dakota for the purpose of observing especially the fall movement of water-birds in that prairie region—a round trip of about 650 miles. The low water conditions that have prevailed this year had greatly reduced the number of ponds and sloughs and so forced the waders and other water-fowl to congregate at places where water still remained. This abnormal condition was apt to give an erroneous idea of the general abundance of such birds unless due allowance was made. Thus, the very large numbers of Ducks seen at certain places represented most of the Ducks from many miles around, they having been driven in by the drying up of the numerous sloughs where they had bred. The following notes made on this trip are pertinent here as indicating seasonal conditions.

Ducks were plentiful in Lincoln County, Minn., and abundant in Lake County, S. Dak. Blue-winged Teal greatly outnumbered all other species combined. At a very large, shallow, and mostly open-water slough, called Milwaukee Lake or Slough, in Lake County, S. Dak., the Blue-wings were present in such numbers as to bring to mind visions of conditions in eastern Minnesota forty to fifty years ago. All over the surface of the slough large flocks disported themselves while on the mud banks and on a deserted railroad fill the birds sat in close-packed masses to be reckoned only in thousands. They were tame and unsuspicious, which doubtless led, a few days later, with the opening of the season, to their wholesale destruction by the horde of hunters which descends these days upon such favored places. Similar conditions existed at Lake Herman a few miles farther west. Other kinds of Ducks were not numerous. Pintails, Mallards, Redheads, Lesser Scaups, Ring-necks, and Spoonbills about comprised the list, named

in the order of their frequency. The Gadwall, which was once such a common nesting Duck in all this region, seems to be almost entirely absent now.

On September 3, the day we visited this big slough, there were 100 great White Pelicans temporarily at home there. They swam majestically about in long lines, flew here and there in little parties, or stood close-ranked and solemn-looking on a mud-flat far out from shore. We were told that they had been there for two weeks, and also that each fall they appear here or on one of the other lakes in the vicinity and tarry for two or three weeks before moving southward.

The Pelicans, as they sailed about, were in the midst of a vast assemblage of Franklin's Gulls, thousands and thousands of them. We saw none of these birds in Minnesota but in Lake County, S. Dak., they were present everywhere. While at Heron Lake, on September 16, I saw many of these Gulls foraging over the country in the daytime and returning to the lake for the night as usual, but seemingly they were not as abundant as formerly. One of the guides, long familiar with the lake, stated that they did not nest at the lake the past summer. If true, this is a surprising and suggestive fact, as the immense colony of breeding Franklin's Gulls has been a conspicuous feature of the lake for as far back as history runs.

Not excepting even the Pelicans, the most interesting bird that we saw at Milwaukee Slough was the Northern Phalarope, for some 50 of these elfin creatures drifted hither and thither on the glassy surface of the water within easy range of our vision from the position we occupied on the southern shore. This was within a very limited area of that vast slough, so it is probable that the total number there that day must have been many hundreds. They were scattered about over the smooth surface, moving quickly in zigzag lines, bobbing their heads and picking constantly at invisible morsels, pausing now and then to turn about rapidly once or twice, and looking for all the world like tiny, drifting, eddying, white puff-balls. Nearby they suggested dainty, miniature Ducks, and the name 'Fairy Duck,' which I have heard applied to them, is most fitting. At a smaller

slough, in Lincoln County, Minn., we saw, on September 3, four others similarly engaged. At both places we watched them for a long time, hoping to see them spin or whirl, but they seemed to be getting sufficient food from the surface without the need of stirring it up from the bottom. Mr. Peterson, of Pipestone, was more fortunate, and in a letter dated August 20, 1923, gives the following graphic description of this curious performance: "The best sight was the feeding performance of three Northern Phalaropes. Wading out into a smooth patch of water, one began to whirl and kept going at seventy turns the minute, nodding in Phalarope-fashion, and picking at the surface of the water, sometimes at each half turn through several circles and then again only after two or three complete turns. Soon this bird was joined by the second and the third. There they were, at times almost jostling each other, two whirling in opposite directions and making scores of turns before stopping. Then resuming the motion with slight rest."

Another noteworthy occurrence during this trip was finding a flock of not less than 50 Stilt Sandpipers at a slough near Lake Shoakatan in Lincoln County, Minn. They were in company with many Yellow-legs, Pectorals, and other shore-birds, but showed a disposition to keep together while feeding or resting. We saw no others of this species among the thousands of waders seen at every suitable place, but Mr. Peterson took three specimens a little later at a point in South Dakota not far from the Minnesota line. In my last chapter, reference was made to the supposed scarcity of this bird in Minnesota, but it may be that it has been overlooked or misidentified in the past.

Since the settling up of the prairies, this region is preëminently the home of the Barn Swallow in Minnesota. Nowhere else are they so abundant. Every farmhouse with its tree-claim has a considerable population, and at this time of year there were hundreds of them gathered in flocks on the wires preparatory to the fall movement.

The opening day of the 'Duck season' found the writer at Heron Lake, a guest at one of the several clubs. The weather was cold and rainy and a gale blowing from the

South. On the morning of the first day, September 16, the flight was fair, but after that it fell off to only a few birds now and then. Some 60 to 70 Ducks made up the combined bag for ten guns in nearly two days shooting. This is a great falling off from old conditions at this famous ducking lake. It was a surprise to find a considerable number of Green-winged Teal present at this date, as they usually do not come down from the North until October. Other localities report the same thing, so there has evidently been an early southward flight of this Teal this fall.

During the past three or four years the former great mid-fall influx of Canvasbacks and Redheads at Heron Lake has fallen off so greatly that the club members are deserting their old stands where they were wont to have such wonderful sport with these big birds. The cause is, undoubtedly, the disappearance of the wild celery which filled the lake and furnished food for the birds. The German Carp, with which the lake is alive, is blamed for the destruction of the celery, and, without doubt, it is, under present conditions, an important contributory factor, but is it not possible that a thorough investigation might show that the steadily falling water-level, drying up of tributary streams, and absence of floods in recent years have produced such altered conditions that the normal aquatic vegetation can no longer flourish? For five years past the two streams that once brought a considerable inflow of water from the west have been practically dry. Ditching and a decreased annual rainfall, which are playing such havoc with natural conditions over much of Minnesota, are probably responsible. —THOMAS S. ROBERTS, *Zoological Museum, University of Minnesota, Minneapolis, Minn.*

DENVER REGION.—The last two weeks of August with us commonly exhibits some late nesting birds. On the 19th a Dove was patiently incubating in my nearby park, and in these two weeks there also appeared in it an unusual number of young Wood Pewees, all clearly just out of the nest, as well as a goodly number of House Finches barely able to fend for themselves. In Denver proper, the last Wood Pewee was seen on September

3, yet the species had not left the mountains by September 18, for one lingered about my cabin at Nighthawk up to that date. Robins were very scarce in all parts of Denver, which I was able to visit after August 15, more notably the previously abundant young ones. Then, on August 25, a good many suddenly appeared about my home, a large proportion of them being birds of the year. I am indebted to my friend Major A. F. Hutchinson, of Durango, Colo., for some valuable notes concerning the birds in and about his area. He tells me that Robins were about his home all of September, but were, I take it, not so common as in the summer; from his observations I think the Robins about Durango leave about the middle of August, just as they seem to do about Denver. I saw no Robins in the 'hills' between September 15 and 24. Miss Copeland reports that Robins were almost all gone in her district during the last week of August and the first two weeks of September. However, from September 18 to 23 there passed through her region hundreds of this species, making the largest wave of migrating Robins that she has seen so far this fall. At the present writing they are going steadily south each day in small but numerous flocks, a thing which can be noted any afternoon from any high point of the city. An unusually large number of Barn Swallows were seen east of the city on September 9; this Swallow stayed in our area at least until October 1, and it was common at Grand Junction up to September 21. Miss Copeland thinks that this species had an unusually successful summer as a breeder in the Grand River Valley. During the first week of September, 1922, Violet-green Swallows still flew about the cliffs and trees of Nighthawk, on the South Fork of the South Platte River, and were abundant, yet this year none was seen after September 15. Its congener, the Cliff Swallow, remained at Grand Junction until September 18.

Meadowlarks either have been scarce or not in evidence, all of the past eight weeks; one brave male refused to leave the cabin neighborhood at Nighthawk, despite a local snowstorm, and was blithely singing each day up to the time I left on September 24.

His was not the tentative subdued song of late winter and early spring, but the full-throated outburst of summer. Miss Prue Bostwick says that these Larks have been singing about her home in Denver during the week just passing. Miss Copeland reports that the Meadowlark has been infrequent in her neighborhood since August 15. I think I have noticed this early disappearance of our Meadowlarks before; I have no definite explanation of it unless they are merely shifting quarters to secure more food.

There have been many House Wrens in and about Denver all summer. I feel sure that the nesting birds left us about August 15; then on August 25 they reappeared in my yard and remained for two or three days thereafter, and scatteringly until October 12. These Wrens were very common at Parker (20 miles south of Denver) on September 30. The Rock Wren frequently returns to Denver by August 15, but none was seen in the city until September 17, when Drummond Aitken and David Painter saw one near the east limit of the city; the species has been in evidence since then irregularly until October 10 when my young friends report "a Rock Wren was seen taking a dust-bath in the road through the old cemetery. It was timed and took two and one-half minutes to bathe." Just before this report was to close (October 13) I saw, to my surprise, a Rock Wren on the stone coping of one of the buildings adjacent to my own office building. Perhaps it took our streets and buildings for its native cañons. My two keen young friends also noted, on the day that they saw the Rock Wren dusting itself, a Sage Thrasher in the cemetery, which brings the species into the city at its usual time of reappearance here. However, it often straggles into the suburbs much earlier.

There has been a striking dearth of Warblers in my region this fall; I myself have seen only the Audubon's in the city, while my friends have seen the Pileolated (September 12 and 14) and the Orange-crowned (October 6). The bulk of the Audubon's Warblers seemed to have been still in the 'hills' on September 24.

Miss Copeland had the good fortune to trap a Macgillivray's Warbler on September

6; her banding work has progressed a little slowly this fall, but banding that Warbler is quite an achievement. The Pileolated Warbler appeared in Grand Junction on September 3; the last Yellow Warbler was noted there on September 8.

Some water-birds have arrived in this region surprisingly early. Redheads, Canvasbacks, and Bluebills were relatively common only 50 miles north of Denver on September 16, a date not less than two weeks ahead of their usual appearance in numbers. On the other hand, Blue-winged and Green-winged Teals were lingering in the mountains along the South Platte River at least until the fourth week of September. It would be interesting to know whether or not this early appearance of the larger Ducks presages an early winter or merely indicates cold and unfavorable conditions in the northern feeding-grounds. In studying the notes given to me by Miss Copeland and my young co-workers, in conjunction with my own observations, I am impressed by the unusual number of large flights of Night-hawks which have been seen this fall here and at Grand Junction. The last of this species was noted by Miss Copeland on October 6, and by myself on the 9th. As I was writing this, Drummond Aitken and David Painter came to me with word that a Poorwill was asleep in the disused cemetery not far from my house. Of course, I stopped long enough to run up and see it. It took keen eyes to detect it as it sat lengthwise on a piece of granite quite similar in color-tones to its own black, gray, and brown.

The Plumbeous Vireo has been relatively common with us this fall and remained until October 6. As I am closing this report, a number of species are still passing through our region on their southward migration, and some are coming in to remain with us this winter. Of the latter the Gray-headed Junco is common today, and the Clay-colored, the Chipping, the Gambel's and the White-crowned Sparrows represent the former. A small flock of Piñon Jays stayed about my home neighborhood on September 5. Bronzed Grackles and Brewer's Blackbirds were last seen by myself on September 24, and the Cowbird was still with us on October

12. Flycatchers were well represented here all of September, the Kingbird, the Arkansas Kingbird, and the Say's Phoebe being much in evidence. A few Cassin's Kingbirds have been seen also, one in the mountains as late as September 21.—W. H. BERGTOLD, *Denver, Colo.*

PORTLAND (OREGON) REGION.—During the latter part of August and the first part of September, a considerable flight of Pintails was noted in various parts of the district. The first evidence that I saw was a flock of about 150 which came to a mountain lake in Wallowa County on August 20. Mr. S. J. Jewett reports large flocks along the Columbia and in the Klamath country at about the same time.

On August 31, at Yaquina Bay, Wandering Tatlers, Turnstones, Sanderlings, Hudsonian Curlews, and Western Sandpipers were noted in migration, the Turnstones being the most abundant. On the same day a Peale's Falcon was found on the beach with a freshly killed adult California Gull in his possession.

On the night of September 1, great numbers of small birds were heard migrating. We hear some of them regularly but my attention was attracted by the unusual number on this date. The first flights of Geese into the Portland district were noted on September 4. During most of September the writer was in eastern Oregon on an extended trip. The usual desert forms were noted in about regular numbers. In the Malheur Lake country, on September 19, great numbers of Pipits and White-crowned Sparrows were in migration. Pectoral Sandpipers and Audubon's Warblers were also unusually abundant. Mr. Jewett reports that Pipits, Pectoral Sandpipers, and Yellow-legs were also very numerous in the Klamath country on the 18th.

Dr. L. E. Hibberd, of Burns, informed me that the birds on Malheur Lake Reservation, particularly Canada Geese and some species of Ducks had had a prosperous season. Water-birds were very abundant in this district, Mallards, Pintails, and Gadwalls being the most numerous.

On September 20 we drove past Flagstaff

Lake, in Lake County, and saw one of the greatest congregations of bird-life it has ever been my privilege to see. Thousands of Canada Geese and tens of thousands of Ducks of various species were present. In addition there were present many Western and Pied-billed Grebes, White Pelicans, Coots, Ring-billed and Bonaparte's Gulls, Farralone Cormorants, and Avocets, as well as 8 Swans which remained in close to shore as we drove along.

The last Pacific Nighthawk was noted on September 23, at Klamath Falls. Up to this date they had been common on our trip.

On my return to Portland, on September 26, I found Juncos, Streaked Horned Larks, Meadowlarks, etc., very abundant. Between October 1 and 15 there was nothing particularly noteworthy in the bird-world, at least that came to my attention. On the morning of the 15th a great flight of Pipits, Western Bluebirds, and Audubon's Warblers were in evidence in East Portland.—IRA N. GABRIELSON, *Portland, Ore.*

SAN FRANCISCO REGION.—The migration of Warblers, which began before August 15 (the date of the last report), continued until September 19, when Miss Wythe saw, in a scattering flock of Yellow Warblers, her last Lutescent Warbler and her first Townsend's. Audubon's Warblers were reported first on October 5 and were very abundant by October 10, finding the reservoir in Wild Cat Cañon a particularly attractive feeding-place. The Ruby-crowned Kinglet, heard first on September 24, has been common since that date. The Alaska Hermit Thrush was seen in an Oakland garden on September 25, just two days after Russet-backed Thrushes were last seen, both in Berkeley and in Alameda. As in the fall of 1920, so again this fall a dozen or more Russet-backs came to feed on the ripe *crataegus* berries in Mrs. Kelly's garden. Young Robins in spotted plumage were seen by Miss Wythe on August 15, and on October 14, as I write, the sound of Bluebirds is in the air—a sign of coming winter rather than spring in this locality.

The arrival of winter Sparrows was detected earlier than usual by Mr. Clabaugh who is banding birds in Strawberry Cañon.

He trapped a Golden-crowned Sparrow on September 20 and a Fox Sparrow on September 22. The presence of Intermediate Sparrows was evident to the most casual observer on October 2 when many songs were heard.

Horned Larks, Cliff, Barn, and Violet-green Swallows were among the land-birds listed at Baumberg on September 16 and Pipits on the 30th.

Among the fall transients, Miss Wythe reports a few Western Tanagers feeding in the Botanical Gardens of the University September 27 to 29. Other unusual bird occurrences in the Berkeley Hills seem to be traceable to the fire which caused the release of a number of aviary birds. A Heermann's Gull on the campus and a Coot in the writer's hillside garden, finally cornered on the porch by excited Blue Jays, were certainly refugees. It seems probable that the Black-headed Grosbeak taken by Mr. Clabaugh on October 9 was also an aviary bird, as Grosbeaks are seldom seen after the middle of September.

The members of the Audubon Association were rewarded by a long list of water-birds at Baumberg on September 16: California and Bonaparte's Gulls, Forster's Terns, Cormorants and White Pelicans, Pintails and Ruddy Ducks, Great Blue Herons and Night Herons, Phalaropes, Avocets, Stilts, a Wilson's Snipe, Least and Western Sandpipers, Greater and Lesser Yellow-legs, Willets and Killdeer. On the 30th, observations were limited because of the preparations for the opening of the hunting season, but one salt pool contained 125 Avocets and 3 Godwits.

The shore-birds have appeared on the Alameda mud-flats in the usual order: Curlews disappeared before September 1; Willets, seen first on August 19, have not been abundant but are still passing through; the season for Phalaropes was from August 15 to October 8, and the numbers were larger than for several years. On August 19, two Least Terns were seen, a rare treat for this locality. Willets, Godwits, Dowitchers, and Sandpipers have all been below normal numbers, and Mrs. Kelly has found no Semipalmated Plover this fall. Black-bellied Plover, which came in on September 6, are

still present to the number of a hundred or more and some are still in breeding plumage. On a sandy bit of beach, 24 Sanderlings were seen October 8, and at Point Bonita, on August 12, two Wandering Tattlers.—AMELIA S. ALLEN, *Berkeley, Calif.*

LOS ANGELES REGION.—Conditions contributing to the development of an abundant food-supply have continued to attract to the marshes and lagoons near Playa del Rey great numbers of migrating shore-birds, during the two months under review. Groups of our members have visited the region every few days, taking careful note of the fluctuations in numbers of the common migrants and recording the occurrence of more rare species, length of stay, etc. Avocets, Black-necked Stilts, Long-billed Dowitchers, and Yellow-legs have been very numerous, their numbers greatly in excess of our previous records.

On August 16, the first Black-bellied Plover were noted, one being in apparently full summer plumage, and 2 others more or less pied. On this date several Knots were seen, a number of them being in the gray plumage, while 3 or 4 still retained more or less of the summer plumage. On the 18th, the little flock numbered 13. They were seen in varying numbers every few days up to September 16, the last date of record.

On August 16 and 27, two Ruddy Turnstones were noted. Black Turnstones also have been noted several times. A very large flock of Black Terns in varied plumage arrived at this time, remaining in gradually decreasing numbers until September 13.

August 16, a considerable number of Wilson's Phalaropes were noted and were present through the remainder of the month. Northern Phalaropes reached the height of their abundance the latter part of August when they appeared to number thousands. Reports reached me of their abundance at many points on the coast from Monterey to San Diego. Long-billed Curlew have been very few, never more than one to four individuals on any list. Two or three Snowy Egrets remained in the marshes throughout the summer.

Western Grebes appeared upon the ocean

August 23. The Wandering Tattler, first listed at White's Point, August 13, was fairly common on rocky shores in the early part of September. The Jäger was seen in pursuit of Terns, September 10 and 13.

Probably the most noteworthy and rare visitors to the marshes were Pectoral Sandpipers, observed by local authorities on September 16, and a Golden Plover seen under very favorable conditions for careful observation by a group of Audubon members on October 4. Reference to authorities and examination of Museum specimens fully confirm our diagnosis.

About 30 White-faced Glossy Ibis came into the lagoons the first of September, remaining through the month. Three Baird's Sandpipers were seen September 26. Heermann's Gulls have been very numerous in the localities they favor. On September 13, they were noted pillaging Brown Pelicans of their catch, one, two or three Gulls attending each Pelican. September 4, 5, and 6, Calaveras and Lutescent Warblers were passing. September 10, there seemed to be a decided southward movement of Great Blue and Anthony's Green Herons along the coast, noted by members driving to San Diego. On the 16th, nine Anthony's Green Herons were seen at Chatsworth reservoir.

The first winter visitant land-bird to arrive was the Ruby-crowned Kinglet, which came in numbers, September 13, together with Calaveras and Lutescent Warblers. With them, also, was a Redstart, found by Mrs. Ellis and Miss Potter, and seen the following day by the writer. So far as available records show, this is the second occurrence of this

species in this region. At this time Western Tanagers, Warbling Vireos, Russet-backed Thrushes, Western and Traill's Flycatchers, and the Rufous or Allen's Hummingbird were passing through. The Black-headed Grosbeak was last recorded September 29.

Say's Phoebe was first seen September 24 and became numerous September 26. Cedar Waxwings visited the writer's garden on the 27th, and this date also brought the first Gambel's Sparrows. On the 29th there was a very large incursion in the Ojai Valley, and on the morning of the 30th they were singing in our gardens. October 5, Audubon's Warblers and Golden-crowned Sparrows arrived. October 4, the Hermit Thrush arrived in two city gardens. October 9, Black-throated Gray Warblers were seen. October 8 and 10, Thick-billed and Slate-colored Fox Sparrows and Golden-crowned Sparrows were abundant in Griffith Park. On the latter date were seen also the first Robins, Thurber's Junco, and the Red-breasted Sapsucker.

October 10, a Green-tailed Towhee, a regular summer visitant to the mountains, but rarely seen in the valleys was found in Griffith Park, where he was again seen on the 11th. Summer birds noted as still present on the 10th were the Western Tanager, the Western Flycatcher, and the Phainopepla. October 12, Meadowlarks and Lark Sparrows were numerous in uncultivated areas near Chatsworth. Willow Goldfinches were in olive dress. At the reservoir were 30 Avocets, a few Yellow-legs and Willets, an Anthony's Green Heron, and an American Egret.—FRANCES B. SCHNEIDER, *Los Angeles, Calif.*

Book News and Reviews

BIRDS OF THE NEW YORK CITY REGION. By LUDLOW GRISCOM. With the cooperation of the Linnaean Society of New York. The American Museum of Natural History. Handbook Series No. 9. 12mo. 400 pages. 6 colored plates, 30 text figures, 1 map.

In 'Birds of the New York City Region,' Mr. Ludlow Griscom has primarily collected the wealth of data of a hundred years' observations by local students of ornithology (of late chiefly by members of the Linnaean Society of New York) and presented them to date in a fully annotated list, choosing several well-worked localities, such as Central Park, Long Beach, and Englewood for detailed records, and giving the name of the observer in every case. He has departed from the example set in the previous Local List published by the American Museum in omitting parts of the neighboring territory covered by ornithologists from Connecticut and the Philadelphia region; and, on the other hand, including the whole of Long Island as being more or less a homogeneous unit.

The introduction is very complete and includes a brief but able discussion of the three local life zones (wherein the author departs from the rigid lines laid down heretofore), detailed lists of the seasonal occurrence of birds, and a historical sketch of the changes in bird-life due mainly to the growth of a great city in what was once an ideal haunt for birds.

An unusual feature of the work is the notes on field identification which accompany most species in the annotated list. The author does not attempt to describe the bird fully but draws on his wide field experience to point out to the student the important field characters to look for in separating it from others which it most nearly resembles. In several instances he gives a full discussion of the status of certain species over which there has been dispute—as in the cases of the Broad-winged Hawk and the Grackles.

The work is therefore not only a valuable addition to North American avifaunal

literature, but also an exceedingly useful handbook for field students anywhere in the northeastern states and provinces. It is to be regretted that the colored plates are not up to the high standard of the rest of the book.—M. S. C.

BIRDS I HAVE KNOWN. By RICHARD HARPER LAIMBEER. G. P. Putnam's Sons. New York and London. 1923. 8vo. XVIII+401 pages. 50 colored plates, 48 photographs.

This is the story of a New York business man—a 'commuter'—who, discovering that the world is populated by birds, determines to make friends with those that frequent the vicinity of his home on Long Island. The book is chiefly a recountal of his experiences in winning the confidence of Thrashers, Catbirds, Wood Thrushes, Robins, Quail, and other feathered tenants, and although the description of the ways and means by which their intimacy was gained and of their responses to their host's advances, is most interesting, we confess we are chiefly attracted by the author's reaction to his bird guests and the numberless new contacts with nature that acquaintance with them established.

The latter part of the book, containing biographies of some 50 common birds, with an Audubon colored portrait of each one, serves to present its author's special friends and adds the practical touch to the eloquent plea for closer intimacy with birds contained in the opening chapters. The two parts combined make a capital introduction to our common birds.—F. M. C.

CASSINIA: PUBLICATION OF THE DELAWARE VALLEY ORNITHOLOGICAL CLUB. No. 24. 1920-21.

Cassinia opens with Witmer Stone's biography of the late Stewardson Brown; a sympathetic and inspiring sketch of a rare personality. Mr. J. Fletcher Street writes on the eighty-one 'Summer Birds of Adam and Franklin counties, Pennsylvania,' Dr. Stone

presents the Club report on the spring migrations of 1920 and 1921 with details of the more noteworthy records, and the Abstract of Club Proceedings for these two years reflects the continued activity of this organization. Fifteen meetings were held in 1920 and sixteen in 1921, with an average attendance of twenty-three for each year.—F. M. C.

The Ornithological Magazines

THE AVK.—The October number opens with an account of the nesting of Solitary Sandpiper and Lesser Yellow-legs in Alberta, by J. Fletcher Street, with photographs of birds, nesting-sites, nests, and eggs. Young Yellow-legs were found out of the egg as early as June 4, interesting in view of the very early date at which the species appears at Atlantic Coast points in south-bound migration. According to data furnished Mr. Street by Mr. Evan Thomson, the Solitary Sandpiper evidences "no particular choice of nest in which to deposit its eggs, the list including those of the Bronzed Grackle, Brewer's Blackbird, Cedar Waxwing, Kingbird, Robin, and Canada Jay. These have been found at an elevation as low as 4 feet and as high as 40."

A. Brazier Howell finds that the deserts of southeastern California act as a rather complete barrier to most non-migratory birds, isolating those to the east from those of the west. The same deserts act only as a partial barrier to migratory birds, deflecting a larger number into Lower California than would be the case were the deserts not there. This is an interesting discussion of distribution and migration problems. Nichols has compared the proportions of Greater and Lesser Yellow-legs (from skeletons), and finds the Greater Yellow-legs has a proportionately shorter leg, smaller head, longer bill. The bill of this species, by the way, being not only actually but proportionately larger, is about its best field-mark. Helen Granger Whittle presents an interesting chronicle of the history of a brood of New Hampshire Catbirds. The adults came to a convenient feeding-shelf for raisins, which they also fed to the young. The female was observed to sing a 'whisper' song while

sitting. As is well known, the male Dickcissel, a persistent singer, takes little part in family duties about the nest. E. D. Crabb, in observations on the nesting of a pair of this species, finds that when a sitting female was reluctant to return to her eggs from which she had been frightened by mowing operations, the male pursued her until she did so. L. R. Wolfe describes a strong colony of breeding Herring Gulls on Four Brothers Islands, Lake Champlain. The Tree Swallow was breeding on one of the islands, and in the absence of hollow trees placed its nest in cavities behind roots in upturned trees, and in one case behind loose pieces of shale along the banks and just over the water. Ruthven Deane quotes 'Extracts from the Field-Notes of George B. Sennett,' 1874 to 1877. "Any personal reminiscences of ornithologists of prominence are always of much interest, especially when they touch upon their early experiences in collecting and field observation." W. H. Sheak has had opportunity to make interesting observations, here set forth, on Struthious Birds in the Philadelphia Zoological Garden, including South African Ostrich, Somali Ostrich, Rhea, Australian Cassuary, Papuan Cassuary and Emu. F. H. Allen discusses 'Group Variation and Bird-Song.' He considers "invention on the part of the singer" an important element in the evolution of bird-song.

'In Memoriam: José Castulo Zeledón,' by Ridgway, with portrait plate of this well-beloved Costa Rican ornithologist, calls attention to the large part he played in the building up of our present knowledge of Costa Rican birds.

A paper by Loomis on the classification of the Albatross, Petrel order of sea-birds, sketches earlier classifications, and presents his own. This last has the advantage of being simple, with few divisions. He does not give many of the data on which it is based, and offers various remarks on the theory of classification, which seem to the reviewer well worth consideration but not particularly sound. 'Further Observations on the Habits and Behavior of the Herring Gull' by Strong, illustrated with a plate from two photographs, and admirably presented,

does not contain much new material that is significant.

Of faunal papers, one is by Burtch, Branchport, N. Y. region, 1922, and treats of Caspian Tern, European Widgeon, and other species of special interest, 14 in all. Recent bird-banding shows that the elusive Lincoln's Sparrow enters a trap quite freely. Burleigh gives an annotated list of 82 species from Clark's Fork, Idaho, with special reference to the breeding of such as breed there. Figgins describes the Black Bayou region, Louisiana, listing 42 species; remarks on the Mottled Duck, and on nesting of Orchard Oriole and Gray Kingbird are of especial interest to the reviewer. He supplements his own observations with such creditable reports from other observers as have come to hand, a good idea but a dangerous one if one has not unusual talent for solving the human equation.

Oberholser has in this number another annual list of proposed changes in the A. O. U. Check-list. He is still very sincerely interested in furnishing American ornithologists with a standard nomenclature. It seems too bad that but a single author nowadays shows tangible evidence of serious interest in the matter.

Perhaps more than the usual variety of interest is to be found in 'General Notes,' from which we may signal out the occurrence of the Whooping Crane in North Dakota (N. A. Wood), and the Wood Ibis in New Jersey (Stone), in 1923; description of courting Baltimore Oriole and Red-wing Blackbird from the female bird's-eye view, recording such phenomena as most field naturalists have in mind when accepting the hypothesis of sexual selection; and the record of a Blue Grosbeak family in southern Pennsylvania (H. H. Beck), narrated so that one shares the thrill of its discovery.—J. T. N.

EL HORNERO.—The first number of the third volume of this admirable organ of the Ornithological Society of La Plata maintains the high standard of excellence set by its predecessors. The editor, Dr. Dabbene, continues his useful monograph of the Petrels and Albatrosses of the South Atlantic, his article of thirty-three pages including eight

figures and eleven maps. Charles Chubb describes a new Finch (*Pseudosicalis stewarti*) and a new Pipit (*Notiocorys bogotensis ship-toni*) from northwest Argentina, an attractive colored plate of each species, by Grönwold, acceptably supplementing the text. Pedro Serie and C. H. Smyth present an annotated list of 186 birds from Santa Elena in the Province of Entre Rios, a supplementary list of 25 species observed by Holland bringing the total of Santa Elena birds up to 211.

A list of the birds of the Province of La Rioja, by Eugenio Giacomelli, includes 227 species. Its author pleads for more effective protection of birds, but assures us that the flesh of Thrushes, the House Wren, Pipit, Tanagers, and other Passerine birds is excellent to eat!

Robert Cushman Murphy writes of the Pipit (*Anthus antarcticus*) which inhabits Georgia Island, 1,200 miles from the South American mainland. There are numbers of photographs of nests and their contents by Andres S. Wilson and Dillman S. Bullock, shorter articles by Alberto Castellanos on 'How the Condor Feeds,' 'Mimicry in Birds,' by Antonio B. Mata, 'The Tinamous of Argentina,' by R. Dabbene, and notices concerning activities of the Society.—F. M. C.

Book News

'The Game Laws for the Season 1923-24,' Farmers Bulletin No. 1375 of the Department of Agriculture, may be obtained at 5 cents per copy from the Superintendent of Documents, Washington, D. C.

In a booklet of 53 pages (Norman-Remington Co., Baltimore), Raphael Semmes Payne pays a tribute to the charms of the Baltimore Oriole and to the memory of Audubon. We fear, however, that neither Lord Baltimore nor Audubon would approve of the figure of a yellow and black Oriole which illustrates this well-printed brochure.

'Attracting Birds with Food and Water,' by Robert Owen Merriman, of Hamilton, Ontario, is a useful pamphlet, copies of which may be obtained from the Commissioner Canadian National Parks Branch, Department of the Interior, Ottawa.

Bird-Lore

A Bi-Monthly Magazine

Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN
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Bird-Lore's Motto:

A Bird in the Bush Is Worth Two in the Hand

WITH this number BIRD-LORE completes its twenty-fifth volume. A quarter of a century is no small part of the average working life and only those who have been associated with BIRD-LORE's production during all or part of this period can realize how much of himself an editor puts into the publication for which he is responsible. A comparatively small part of this effort actually appears in the printed page, but the files of one's correspondence, if they were examined, would reveal a thousand unsuspected lines of contact, each bearing in a greater or lesser degree some portion of the message which the magazine has tried to carry to the world of bird-lovers.

Yielding to an impulse, which we are now glad was not suppressed, we gave expression in an earlier number of this volume to a regret that our readers were not somewhat more responsive, with a result so encouraging that we shall never again feel that we are addressing an unseen audience. From every corner of the country came as cordial words of commendation as any editor could hope for, but among all these cheering assurances none has been more welcome than the greeting of our esteemed and venerable contemporary *The Auk*, which in spite of its abbreviated wings and undeveloped vocal powers reaches heights of eloquence in BIRD-LORE's praise in sentences as musical to our ears as the notes of Thrushes! And when in a final flight of words, if not wings, the Editor classes BIRD-LORE with *The Auk* as "incomparable," we feel that we have

entered a habitat hitherto sacred to *The Auk* alone.

We have not the slightest hesitation in giving the widest possible publicity to the exalted esteem in which BIRD-LORE finds itself held. As we have long said, BIRD-LORE is a coöperative institution. To no one person belongs the credit for its achievements. If the Audubon Department contains more authentic news concerning the battle for bird-protection, more information concerning the activities of allied societies than any other publication, our thanks are due primarily to its Editor. If in each issue the School Department contains original, inspiring suggestions it is because its Editor is in constant touch with the field of birds and bird students. If 'The Seasons' reflects conditions in the bird-world from the Atlantic to the Pacific we are indebted to the corps of observers who report to its Editor. If the data on bird-migration are more valuable than any that have heretofore been published it is because we have the assistance of the Biological Survey. If our pages are filled with fresh, interesting, valuable studies of birds and with scores of beautiful photographic records of bird-life, it is because we have the coöperation of hundreds of bird-lovers throughout the land who generously share their experiences with others; and if BIRD-LORE has guided the first steps in bird-study of many of its readers, it is not alone because they have found inspiration in its pages but help from its Advisory Councilors. And finally, we should be more than ungrateful if we did not accord due praise for BIRD-LORE's success to those who give it form. For twenty-five years, with a minimum of error, they have put in type manuscripts abounding in names strange to most composers, and even the hastily scrawled, barely legible bird censuses have brought no word of complaint; nor have they ever failed to meet the emergency call of an editor whose absences afield have not infrequently necessitated prompt and special treatment of copy by the printer. Obviously, therefore, we may all regard BIRD-LORE's twenty-five volumes with mutual satisfaction and look forward with confidence to the time when they will number fifty.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by A. A. ALLEN, Ph.D.

Address all communications relative to the work of this department to the Editor, Cornell University, Ithaca, N. Y.

RING OUT THE OLD

With photographs by A. A. Allen, Ph.D.

Another year is waning. The summer birds have come and gone and the winter birds are with us again. The good resolutions we made last January have long since been forgotten, and we are already beginning to make our plans for the next season. Let us pause long enough to review the happenings of the year and see if we have made the most of them.

January 1—how many started a 'bird calendar' and how many have kept it up throughout the year? At Cornell we always begin the year with a New Year's hike for birds and that gives the calendar a good start. We have a large chart on the wall, made of 'profile paper,' 5 feet high and 9 feet long, with columns for every day in the year and lines for each bird so that we can keep a complete record of each bird's attendance throughout the year. A roll-book might do just as well, but we like to have the chart before us at all times as a gentle reminder to the older observers and as an inspiration to the younger. We started with twenty-six birds, January 1, and the total list has now grown to 193 and it may go over 200 before December 31. There are a few blank areas



PURPLE FINCHES FLOCKED TO FEEDING-STATIONS LAST WINTER. IT WAS A FINE OPPORTUNITY FOR BIRD-PHOTOGRAPHERS AND BIRD-BANDERS

on the chart, indicating where no records were kept during a part of the summer, but, on the whole, the chart gives a good account of the activities of the Ithaca birds for the year 1923. We have kept these charts for fifteen years; how many of you have done as well?

Then there were the feeding-stations to keep up. Of course, they were started in the fall or they were just continued over the summer, but it was after January 1 that the new birds began to come. Throughout the East, Purple Finches flocked to the feeding-stations, even in places where they are ordinarily never seen. It was an opportunity for the bird-photographers and the bird-



HUNTING DUCKS WITH A CAMERA AND DECOYS AFFORDED GOOD SPORT LAST SPRING
HERE ARE THREE RING-NECKED DUCKS DROPPING IN

banders, as well as for the bird-feeders, and many took advantage of it. The writer secured his first photographs of Purple Finches, and hundreds of the Finches were banded at various stations by members of the bird-banding associations. Already a number of returns have come in from birds banded in one state and taken in another, and many interesting facts will be brought out in the next few years by these banded birds. 'Bird-feeders' who have not already done so should hasten to affiliate themselves with one of the bird-banding associations.

Mr. Lawrence B. Fletcher is secretary of the New England Bird-Banding Association, operating in Quebec and the New England States, with offices at 50 Congress Street, Boston. Mr. Wm. I. Lyon, 124 Washington St., Waukegan,

Ills., is secretary of the Inland Bird-Banding Association, operating in the Mississippi Valley, and Mrs. J. B. Webster, 44 W. 23d St., New York City, is secretary of the Eastern Bird-Banding Association, operating in Ontario and the Middle Atlantic States. Any one of these secretaries will be glad to hear from you and give you further information about the bird-banding work.

In some places, water-fowl were unusually abundant during the winter and yielded to the wiles of the photographers and the bird-banders. On Cayuga Lake, we banded over 200 Canvasbacks, Scaups, and Black Ducks, and the returns from them are now beginning to come in, indicating to us where our Ducks come from. During March and April, the returning water-fowl were unusually abundant, and it was great sport to hunt them with a camera and get wing-shots at them as they swung over wooden decoys. This sort of hunting, with a camera, satisfies even the 'dyed-in-the-wool' Duck-hunters and has the advantage over hunting with a gun in that there is no closed season and one can shoot the same Ducks over and over again, as often as they circle over the decoys.

Then came the spring, with its Robins and Bluebirds and Wrens. How many Bluebirds found nesting-boxes awaiting them? Mine were in place by March 1, cleaned and waiting when the Bluebirds arrived so that they were well started on their home-building before the Wrens came and were able to hold their own against them. The Chickadees, too, were able to compete with the Wrens this year, but the Nuthatches did not seem to like my nesting-boxes. I wonder if any one of BIRD-LORE's readers is regularly successful in enticing Nuthatches or Downy and Hairy Woodpeckers to build in their nesting-boxes. We would like to hear his experiences. My Downies roost in the nesting-boxes but when it comes to nesting, they drill a new hole in the branch above the box rather than avail themselves of its commodious compartment.

And next came the migration period—not as rich as usual in numbers of birds with us in central New York but, nevertheless, interesting. The usual competition among the local bird students to see the first Robin and the first of each species in turn created plenty of excitement at times and brought forth many good lists. The largest number seen on any one morning trip was 91 on May 20, 10 less than our record number. Doubtless many others did better than this in other parts of the country, but when I have seen 90 species in a single morning I feel well repaid for getting up early.

Our Bird Club continued its customary Saturday morning trips for the school children and others interested, with a larger attendance than usual. I hope you were all as successful as we were, for on several mornings we saw over 50 different kinds of birds.

It is the nesting season that appeals most strongly to bird-photographers, presenting, as it does, the most opportunities for testing their skill and ingenuity. And those who do not use the camera still find it the period when the most interesting observations can be made on the songs, courtship, and home-life of the various species. Some bird students keep a daily journal of all their

observations. Others write their observations for each species on separate cards and keep them in the form of a catalogue or loose-leaf system. The first method is the easier, but the latter is the more serviceable.



WHEN A ROBIN NESTS NEAR YOUR WINDOW, IT IS AN OPPORTUNITY
TO MAKE A KEY THAT WILL UNLOCK MANY SECRETS OF BIRD-
BEHAVIOR FOR YOU

Every year certain opportunities present themselves for the study of local birds which do not come again for years. The alert ornithologist recognizes these opportunities when they come and makes the most of them. It may happen that a Robin nests near the window where it can be observed at close range without disturbing it. This is the opportunity to get a complete set of observations from the beginning of the nest until the young leave of their own accord. It requires a good deal of time and patience to record the complete activities of both parent birds throughout the nesting period, but one who has done it has made for himself a key that will unlock secrets of bird-behavior that would otherwise be unintelligible to him or to others.

Early this spring a flock of over 1,000 Herring Gulls and a few Ring-billed Gulls were attracted by the city garbage disposal and became so accustomed to the trucks and the men working on the dump that they could often be approached within a few paces. This was an admirable opportunity for close range studies for those who were not too sensitive to the environment.

Occasionally some very unusual bird settles down in one's locality for a year and offers an opportunity for study that may never come again. For years I have awaited a chance to study Pileated Woodpeckers but not until this year have I been able to locate a nesting pair. Another unusual bird for this locality, that presented itself for the first time this year, was the Whip-poor-will which a friend discovered brooding its young about 10 miles from the city in another direction. It furnished an admirable study in protective coloration and was most interesting in the methods it employed to distract our attention from its young, dragging itself over the ground as though wounded, balancing itself on logs and waving its wings and even flying at our heads.

It is the common birds, however, that furnish the most opportunities for worth-while studies. Often these common birds are the rare ones in other localities. Many of you, for example, are accustomed to having Blue Jays nest in the trees about your gardens, Brown Thrashers in your shrubbery, and Nighthawks on your gravel roofs. In central New York, on the other hand, the Blue Jay is a wild woodland bird, the Brown Thrasher is exceedingly rare, and the Nighthawk is never seen except during its migrations. I have waited for years for a good opportunity to make studies of these common birds and the chance has not yet come.

During August, Sandpipers and Plovers flocked down from the north, and wherever they could find suitable feeding-grounds, they assembled in numbers to the delight of local bird students. A 'pup tent' set up on the shore makes an admirable blind from which to study and photograph these shore-birds.

Following the shore-birds came the flocks of confusing dull-colored Warblers, the exasperation of the beginner but the delight of the experienced field student. Next came the Sparrows and finally the Ducks.

Nor must we forget the American Ornithologists Union meetings in Cambridge and the National Association of Audubon Societies meetings in New York with all their delightful associations and opportunities for making friends with bird students from other parts of the country. Those who missed these meetings this year should make every effort to be present next year when the American Ornithologists Union meets in Pittsburgh and the National Association of Audubon Societies again in New York City.

Now the leaves have fallen and with little effort we find all of the birds' nests that were concealed so artfully from us last summer. This is the time to start the school children making a collection of winter birds' nests. If you have difficulty in identifying them you will find a key printed in the November-December BIRD-LORE for 1920. Nests should be wired or sewed to the branch



GULLS AT THE GARBAGE-DUMP—ANOTHER GOOD OPPORTUNITY FOR
THE BIRD-PHOTOGRAPHERS



A WHIP-POOR-WILL BROODING ITS NEWLY HATCHED YOUNG MADE A GOOD STUDY
IN PROTECTIVE COLORATION

whenever practicable and either fastened into a show-case or preserved individually in boxes about the size of collar-boxes.

Yes, there is always something out-of-doors to make life interesting. No one has the time to improve every occasion that comes, but next year, let us recognize at least one opportunity and make the most of it.—A. A. A.

A FEW SUGGESTIONS FOR ATTRACTING BIRDS AND FEEDING THEM DURING THE WINTER MONTHS

It is interesting to have bird friends around the home in the summer months, singing, building nests, feeding their young, destroying a little fruit, maybe, but always, every day, combing your trees, shrubs and flowering plants in search of the destructive insect pests that infest them. It is just as interesting, and sometimes gives a better opportunity for close-up study, to have them come on the cold winter days, to your window or porch or lunch-counter, for the food that is due them in return for the good work they have been doing. Just a little encouragement will bring them, and the service they give you then, by devouring weed seeds and by destroying the eggs and dormant insects concealed in the tree bark and other hiding-places, will more than repay you for your trouble.

'Wild Bird Guests,' a book by Ernest Harold Baynes, a pocket size edition called 'How to Make Friends with Birds,' by Neil M. Ladd, and Farmers' Bulletin No. 621 'How to Attract Birds in the Eastern U. S.,' by W. S. McAtee, distributed by the Bureau of Publications, U. S. Department of Agriculture, Washington, D. C., contain illustrations and descriptions of a number of feeding-devices, shelters, bird-houses, etc., and will answer almost any question that might come up in the matter of year-round acquaintance with birds. Below are given a few suggestions selected from these and other good bird-books, as well as from personal experiences:

A simple strip of wood along the outer edge of the window-sill, extending from $\frac{1}{2}$ to an inch or more above its level, will hold sunflower seed, hemp seed, and bread crumbs, three particular things that all birds seem to be especially fond of. One end can be left open to allow water to drain off.

An open shelf or window-tray, drained, a foot or so wide, sheltered on the north end by a board, and with narrow strips around the other edges, can be attached to the window-sill or placed on the porch, or even on a pole. A branch covered with melted suet, or with auger-holes bored in it to hold suet, fat, or nuts, could be added. A small hopper would keep the seed from being scattered. A roof is desirable, but not necessary.

A tray or traveling lunch-counter, suspended on a trolley connected with a nearby tree, that can be drawn gradually toward the house as the birds get used to it, will coax them on, and after that they will keep coming.

A cocoanut with holes cut in the side will allow it to be filled with suet, fat,

nuts, etc. It can be suspended from the porch roof or from the limb of a tree. Even a wire frame electric light bulb shield makes a good hanging-basket for suet.

A piece of $\frac{1}{2}$ -inch wire mesh, about 6 inches square, nailed to the side of a tree or post, makes an excellent pocket for food.

A lump of suet tied tightly to a branch with many wrappings of twine, will last a long time.

The empty ham-bone can be hung out with good results.

Cracked nuts, moistened bread, or any soft, fatty substance, pressed into the cracks in the tree bark, will be quickly found.

Pork, bacon, or other meat-rinds, nailed to a tree or post, out of the reach of cats or rats, are appreciated. (Tin or sheet metal around the post or tree will stop the cats.)

A covered revolving food-tray or lunch-counter, mounted on a swivel, like a weather-vane, and sheltered with glass on three sides, is one of the best devices known.

A string of nuts, peanuts especially, festooned on a nearby shrub, is not only useful, but can be made ornamental as well.

The discarded Christmas Tree can be set up outdoors after it has done its Christmas duty, festooned with strings of nuts, fruit, cranberries, holly, popcorn, suet, etc., and will give you—and the birds—a little after-Christmas joy.

After a heavy snow, if you will tramp a small area of it down hard and scatter millet seed in the clearing, the Juncos and Tree Sparrows will come—and thank you.

A somewhat elaborate window-shelf has been designed by Mr. Baynes, and described fully in his book. It is made the full size of the lower window, extending into the room about a foot, with top, back and sides of glass.

A FEW FOOD PREFERENCES

The Titmouse, Chickadee, Nuthatch, and Woodpeckers are very fond of sunflower seed.

The Cardinal and other seed-eaters will come to your window for a treat of hemp seed. A bit of something bright red on the tray is said to act as a lure to the Cardinal.

The Chickadee and the Junco are very partial to millet.

Other desirable kinds of winter food are: cut-up apples, buckwheat, crackers, broken nuts, whole or rolled oats, peppers, pop-corn, pumpkin and squash seed, raw or boiled rice and wheat.

A little sprinkling of fine grit, and occasionally a little salt, will help.

ONE THING MORE

Please remember this. If once you start putting out food, don't fail to

keep it up—at least until spring comes when the birds can get their natural foods again.

[These suggestions were issued by the Bird Group of the Webster Groves Nature-Study Society as a stimulus to a winter bird-contest organized in the schools under the direction of Mrs. Charles Martin, 400 Algonquin Place, Webster Groves, Mo. Merit values were assigned to each type of feeding-device and prizes offered to the children getting the highest scores. Such competitions should be encouraged in all the schools of the country.—A. A. A.]

FROM YOUNG OBSERVERS

THE BIRDS THAT COME TO MY HOME

In the back of my home there are two trees in which I have put up food for the birds. In one tree I have a bird-feeder, suet, and a round wooden box with a perch, and a piece of suet in it. The birds stand on the perch and eat the suet. I also have two sticks in which I have cut holes. In the holes I put suet and the Juncos, Chickadees, and Downy Woodpeckers are kept busy all day.

In the other tree there is suet, and the birds are always there when I come out.

The Chickadees, Song Sparrows and Tree Sparrows are very tame and come right up to me. The Song Sparrows and Tree Sparrows like cracked corn and pound cake but like it on the ground. The Downy Woodpeckers and Brown Creepers eat only the suet. Sometimes the Brown Creepers will eat corn that is cracked very fine. The Juncos, Chickadees, Golden-crowned Kinglets, and White-throated Sparrows like the suet and pound cake. Sometimes I give them doughnuts which they like very much.

The English Sparrows and Starlings never bother the other birds because they eat the corn in the chickens' run. The birds that have come to my feeding place are: Chickadees, Juncos, Downy Woodpeckers, White-throated Sparrows, Song Sparrows, Tree Sparrows, Brown Creepers, and Golden-crowned Kinglets.—CAROL STEVENSON (age 13 years), *Bay Shore, L. I., N. Y.*

A NARROW ESCAPE

As a friend and I were walking through the woods, a bird rose up before us and flew to a tree. We followed it to see what kind of a bird it was. As we approached the tree we heard the loud squeak of a bird in terror. Suddenly a Wood Thrush flew to a thicket before us and, emerging from that, ran straight toward and past me. Closely pursuing it was a large Sparrow Hawk. So intent was he on getting the Wood Thrush he did not notice us. He flew over the thicket and down upon the Wood Thrush but missed it and flew right against my legs.

All this happened in a minute and before we could recover from our astonishment, the Thrush had disappeared in some bushes beyond and the Hawk had righted himself and was soaring in the sky.

Thus we unintentionally saved one of our best song-birds.—WALTER WESTCOTT (age 13 years), *Mount Vernon, N. Y.*

[Since Sparrow Hawks are all the same size, this may have been a Sharp-shinned Hawk.—A. A. A.]

CUCKOO AND MOTH

One day last summer while I was sitting under a tree watching a Red-eyed Vireo's nest I heard a commotion at my left. What I at first thought was a Robin followed by a troupe of English Sparrows, I found to be a Yellow-billed Cuckoo, with a very large moth in its bill.

As I approached, the English Sparrows flew away and the Cuckoo attempted to but was very much handicapped by the moth which was still alive and every now and then opened and shut its wings. The Cuckoo finally got to a tree, and raising its head, it struck the moth against the limb. The moth was finally subdued and made flying easier for the Cuckoo. It then flew to another tree where it was joined by a second Cuckoo and together they started to devour the moth.

The birds then dropped the moth, intentionally or not I do not know, but when I examined it I found about one-half of the body eaten.—W. G. LANDRETH (age 13 years), *Lancaster, Pa.*



HERRING GULL ON NEST

Photographed by Walter E. Hastings on Gull Island, Lake Huron

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by T. GILBERT PEARSON, President

Address all correspondence, and send all remittances, for dues and contributions, to the National Association of Audubon Societies, 1974 Broadway, New York City. Telephone, Columbus 7327

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THEODORE S. PALMER, *First Vice-President* WILLIAM P. WHARTON, *Secretary*
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SAMUEL T. CARTER, JR., *Attorney*

Any person, club, school or company in sympathy with the objects of this Association may become a member of it, and all are welcome.

Classes of Membership in the National Association of Audubon Societies for the Protection of Wild Birds and Animals:

\$5 annually pays for a Sustaining Membership
\$100 paid at one time constitutes a Life Membership
\$1,000 constitutes a person a Patron
\$5,000 constitutes a person a Founder
\$25,000 constitutes a person a Benefactor

FORM OF BEQUEST:—I do hereby give and bequeath to the National Association of Audubon Societies for the Protection of Wild Birds and Animals (Incorporated), of the City of New York.

ANNUAL MEETING

The nineteenth annual meeting of the National Association of Audubon Societies was held in the American Museum of Natural History, New York City, October 29 and 30, 1923.

At the public session, the first evening, Hon. Frederic C. Walcott, president of the State Board of Fisheries and Game of Connecticut, spoke on the work being done by the game departments, especially in the eastern states, in their efforts to protect and increase the supply of game-birds and game-animals.

Dr. Robert Cushman Murphy made an address on the disappearance of sea mammals. He gave many startling accounts of the slaughter of whales, walruses, and other denizens of the deep that are hunted in all the seas of the world by commercial agencies.

Herbert K. Job exhibited two new films, covering pictures which he had recently made. One of these showed studies of the fast-disappearing Heath Hen on Martha's Vineyard.

Mr. T. Gilbert Pearson spoke on the progress in wild-life protection during the past year and exhibited slides and motion pictures, the latter having been made by Mr. Job to illustrate the abundance of wild

fowl in that general territory on the Louisiana coast where there is now being organized a large shooting club by Edward A. McIlhenny.

At the business session on the morning of October 30, reports of the president, treasurer, and Auditing Committee were read. Drs. George Bird Grinnell and Robert Cushman Murphy were re-elected as members of the Board of Directors. Reports of field agents and addresses by representatives from a number of affiliated organizations were heard.

After adjourning for luncheon, as guests of the Association, the delegates and members again came together for an Educational Conference, presided over by Edward H. Forbush, the Association's field agent for New England, and president of the Massachusetts Audubon Society.

Among those present from a distance were: Mrs. H. B. Skeele, and Mr. H. B. Skeele, president of the Savannah (Ga.) Audubon Society; Misses Mary Gilman and Mabel Stuart Davies, of the Cumberland County (Maine) Audubon Society; Mrs. Francis H. Coffin, president of the Scranton (Pa.) Bird Club; Edmund Seymour, president of the American Bison Society; Miss Susan Ratledge, representing the West Chester (Pa.)

Bird Club; John B. Burnham, president of the American Game Protective Association; Miss Katharine H. Stuart, president of the Alexandria, Arlington, and Mt. Vernon (Va.) Audubon Society; Miss M. Elizabeth Bellinger, representing the Connecticut Audubon Society; Beecher S. Bowdish, secretary-treasurer of the New Jersey Audubon Society; Mrs. E. O. Marshall, representing the Massachusetts State Grange's Committee on the Protection of Birds; Herbert K. Job, representing the New Haven (Conn.) Bird Club; J. Irving, member of the Linnaean Society; Dr. Eugene Swope, agent of the National Association for Ohio; Miss Frances A. Hurd, the Association's field agent for Connecticut; Arthur H. Norton, of the Cumberland County (Maine) Audubon Society; Winthrop Packard, secretary of the Massachusetts Audubon Society; Mrs. Winthrop Packard, member of the Massachusetts State Conservation Committee of the Women's Clubs; Dr. Frank M. Chapman, of the Englewood (N. J.) Bird Club; Mrs. Mary S. Sage, the Association's field agent for Long Island; Henry E. Childs, secretary of the Rhode Island Audubon Society; Mrs. L. J. Francke, of the Bird Club of Long Island; and Dr. T. S. Palmer, acting president of the District of Columbia Audubon Society.

Among the many interesting reports was one by J. M. Johnson, who, as Park Naturalist in the Rocky Mountains National Park, served as field representative of the National Association.

Of the many subjects discussed one was in reference to the proposed Louisiana Gulf

Coast Club now being organized by E. A. McIlhenny on the Louisiana coast. A committee appointed with power to draft a resolution expressing the sentiment of the members of the Association in convention assembled on this matter reported as follows:

WHEREAS, Mr. E. A. McIlhenny, of Avery Island, Louisiana, has announced that he is forming a hunting club of not less than 2,000 members, which will operate on the 80,000-acre tract of marsh land lying between the Rockefeller Wild Life Reservation and the State Wild Life Reservation near Vermillion Bay, Louisiana, and in the immediate neighborhood of Marsh Island Reservation purchased by Mrs. Russell Sage some years ago.

WHEREAS, On the propaganda literature sent out by Mr. McIlhenny the project is advertised as "America's Last Great Hunting Ground."

WHEREAS, Both the Rockefeller and the Sage Foundations have entered strong protests against the establishment of this enormous hunting club in the very midst of these wild-fowl sanctuaries,

Be it Resolved, That the National Association of Audubon Societies, assembled in Annual Meeting in New York City, publicly go on record in expressing its disapproval of this project, hoping that public opinion will be so strong that Mr. McIlhenny will desist in his efforts, and that a way may be found to make of this region a wild-life sanctuary, similar to the adjacent territories.

Be it Further Resolved, That the foregoing resolution be incorporated in the official minutes of this meeting, and that it be given any publicity that promises influence for conservation.

G. CLYDE FISHER, *Chairman*
WINTHROP PACKARD
BEECHER S. BOWDISH

October 30, 1923.

Committee

ROOSEVELT BIRD SANCTUARY

During the closing days of October, 1923, the Association was the recipient of a gift from W. Emlen Roosevelt in the form of a tract of land covering 11½ acres at Oyster Bay. This was presented with the understanding that it would be preserved in its present general wildness as a bird sanctuary. The land adjoins and immediately surrounds on three sides the Young's Memorial Cemetery where Theodore Roosevelt lies buried.

At a previous date Mr. Roosevelt had

purchased and presented to the cemetery authorities a house and lot in the immediate vicinity, and this has been leased to the Association for a period of ten years. Here it is planned that the guardian in charge of the bird sanctuary will reside.

The land is at the present time thickly grown with shrubs, vines, bushes, and medium-sized trees. There are to be found on it tulip, poplar, black walnut, oak, and numerous old apple trees. There are honeysuckle, wild grape, sumac, and cedars.

Additional plantings that may be made from time to time will all be of trees or shrubs or flowers native to Long Island.

The property faces on the main highway running from Oyster Bay to Cold Spring Harbor, and here, near the road, the directors of the Association plan to erect a Roosevelt Memorial Fountain and Bird Shrine, funds for which were collected from the members and friends of the Association shortly after Colonel Roosevelt's death, on January 6, 1918.

In the sanctuary property, bird-boxes and

feeding-stations will, of course, be erected and every care taken to make birds welcome. By means of a cat-proof fence and a watchful guardian, there will be excluded from the area any bird-hunting house cats.

Dr. Eugene Swope, of Cincinnati, Ohio, has been engaged to take charge of the sanctuary, and he and Mrs. Swope will live on the ground. The development of the enterprise is in charge of a committee consisting of Dr. George Bird Grinnell, Dr. Frank M. Chapman, Mrs. Mabel Osgood Wright, and T. Gilbert Pearson.

'BIRD SUNDAY'

Rev. W. Scott Stranahan, of Sulphur Springs, Ark., has sent the Association the following notice:

"On Sunday, August 26, 1923, there occurred at Sulphur Springs, Ark., the first 'Bird Sunday,' a sacred service held in the new Grecian Theatre of Ozark Colony. The entire program centered upon song-birds, and its originator, Mrs. Walter R. Eaton, of Ozark Colony, designed it to be an annual state-wide event, and possibly a National Sabbath, set apart to 'the feathered songsters of the blue,' to teach and lead the minds of youth and adult alike to the beauty and wonderful blessing of bird-life.

"The scene on this first 'Bird Sunday' was vividly impressive; the delightful setting of the Grecian Theatre itself; the soft, flood-lights; the beautiful, natural stage, with

leafy, overhanging branches of huge oaks in which the sweet twitter of evening benisons of nesting-birds could be heard by the great audience; the peaceful Sabbath calm. Altogether, the occasion was superlative, inspiring, emblematic, lovely. All the artists on this unique program were well known, some of international reputation, and songs, prayer and 'bird psalms' were in keeping with the sacred hour.

"A further request will be made to BIRD-LORE, as the interest in this special Sabbath continues to spread with the hope of its being a permanent establishment. All branch Audubon Societies wishing to inaugurate this incomparable 'Bird Sunday,' kindly write for information to its originator, Mrs. Walter R. Eaton, 'Eaton Terrace,' of Ozark Colony, Sulphur Springs, Ark."

LOUISIANA GULF COAST CLUB

Mr. Edward A. McIlhenny, of Avery Island, La., has issued an attractive 36-page pamphlet with covers, setting forth, by means of text and numerous illustrations, a region which he describes as 'America's Last Great Hunting-Ground.' This refers to some 80,000 acres in southern Louisiana, bounded on the south by the Gulf of Mexico, on the west by the Rockefeller Wild-Life Refuge; on the east by the Rainey, McIlhenny, and Louisiana Wild-Life Refuges, and showing, a little farther away to the east, the Sage Wild-Life Refuge on Marsh Island.

This booklet is being issued in connection with an invitation to wealthy sportsmen to become members of the 'Louisiana Gulf Coast Club' which is to own and control this region. One of the chief attractions which Mr. McIlhenny offers to the prospective club members is the opportunity of shooting wild fowl. The idea of establishing this great shooting club of 4,000 members, 2,000 of whom are to have shooting privileges in the very midst of these wild-fowl sanctuaries, has not been received with marked enthusiasm on the part of the general public. When the

Rockefeller Foundation and the Sage Foundation, representing the heirs of Mrs. Russell Sage, who had paid for the two wild-life sanctuaries bearing their name, came out with the strong protest to Mr. McIlhenny and the governor of Louisiana, a stream of resentment was raised throughout the country. Many conservationists were especially displeased because Mr. McIlhenny was putting forward his proposition strongly as a conservation measure.

At this writing, forty state and local Audubon Societies, bird clubs, and other conservation organizations have filed letters and resolutions of protest in the office of the National Association of Audubon Societies. The president of the Association early voiced his personal disapproval of the plan, and upon the occasion of the first meeting of the Board of Directors, after the general facts of the scheme became known, resolutions were passed opposing the plan.

On another page may be seen a copy of the resolutions authorized by the members of the National Association upon the occasion of the nineteenth annual meeting. The resolution of the Board of Directors of the Association as adopted on October 30, 1923, is as follows:

WHEREAS, Mr. Edward A. McIlhenny, of Louisiana, has announced a plan for the establishment of a large shooting club in the midst of the three great wild-fowl sanctuaries of the Louisiana coast, such a club to offer to its members unusual and exclusive shooting privileges, in a measure at least, directly dependent on the great protected areas immediately adjoining it on two sides, and

WHEREAS, The original creation of these great sanctuaries was in large measure due to the initiative of Mr. McIlhenny, who was generally regarded as working for the conservation of wild life solely in the public interest, and

WHEREAS, We believe that the combination of these facts and the circumstances surrounding them will have a strong tendency to develop in the general public mind a suspicion, now held by some, regarding the sincerity of organizations of sportsmen and others in their efforts to establish bird sanctuaries,

Therefore, be it Resolved, That the Directors of the National Association of Audubon Societies express their strong conviction that this project, if carried into effect, will be a severe blow to the movement for wild-life conservation by means of sanctuaries, and we urge upon Mr. McIlhenny entire abandonment of the plan in so far as it would set up in that section a private game preserve, and, further, we urge Mr. McIlhenny to unite with this Association and others in an effort to make of this territory a wild-life sanctuary under state or Federal protection.

NEW LIFE MEMBERS

Fee, \$100

Enrolled from September 1, 1923 to November 1, 1923

Aspinwall, John
Brawner, Miss Maybelle F.
Dix, S. M.
Edgar, W. A.
Eidlitz, Otto M.
Fairchild, Charles S.

Gage, Mrs. B. W.
Gleason, Herbert P.
Hunter, Arthur M.
Lamont, Mrs. Thos. W.
Roebbling, Siegfried
Scoville, Miss Grace

NEW SUSTAINING MEMBERS

Fee, \$5 Annually

Enrolled from September 1, 1923 to November 1, 1923

Adams, Charles
Alexandria, Arlington, and Mt.
Vernon Audubon Society
Alter, Joseph R.
Amerman, Rev. Jas. L.
Armstrong, C. A.
Atlee, John L.
Bagster-Collins, Mrs. L.
Bakewell, Mrs. John
Ballantine, Miss Isabel A.

Banker, L. G.
Barnitz, Wm. B.
Barrett, Mrs. Louis R.
Bass, Mrs. G. H.
Bassett, Mrs. Carroll
Batten, Mrs. L. W.
Beall, Mrs. T. A.
Bechtel, Ed. E.
Beers, Albert B.
Bishop, Arthur E.

NEW SUSTAINING MEMBERS, continued

- Blakslee, Miss Fanny
 Bleahley, Rollin B.
 Bond, Miss Nancy K.
 Bonny, Edwin L.
 Bonta, Edwin
 Boulton, Mrs. Howard
 Boyd, Edmund
 Brandt, Mrs. Carl
 Brown, Mrs. Alexander
 Browne, Miss Evelyn
 Cameron, Miss Mary
 Campbell, Miss Margaret
 Carter, H. S.
 Cauldwell, Mrs. Thos. W.
 Ceasly, Mrs. W. H.
 Chapman, Miss Fanny
 Cossmann, Ernst
 Curtis, Eugene J.
 Dalton, Mrs. William
 Darte, Mrs. F. G.
 Davis, Mr. and Mrs. Archibald D.
 Demarest, Miss S. Elizabeth
 Ditman, Miss A. L.
 Dominick, M. W.
 Drennan, Miss Helen M.
 Durham, J. Edward, Jr.
 Easton, Mrs. Jane F.
 Eaton, Miss Augusta
 Eden, Mrs. J. M.
 Fargo, William G.
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 Gillis, Frank
 Good, Mrs. Herman
 Goodbody, Miss Margaret J.
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 Grinnell, Mrs. Morgan
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 King, R. W.
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 Kinsley, Mrs. Harry R.
 Kitchell, J. Frank
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 Leary, Mrs. D. J.
 Lenk, Arno O.
 Lewis, Mrs. Tracy H.
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 Lockwood, Col. J. A.
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 McCall, Mrs. Harry W.
 McKenna, E. B.
 McLaughlin, W. A.
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 Rotherth, Oliver
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 Schroeder, Alfred
 Scrogin, Everett

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Semler, Geo.	Tracy, Miss Anne H.
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Sligh, Mrs. Charles R.	Van Ness Bros.
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Smith, Miss Esther M.	Van Wyck, Mrs. Stephen C.
Smith, Ezra H.	Very, Miss S. C.
Smith, Mrs. Ira S.	Walton, Mrs. Charles S., Sr.
Smock, John C.	Warren, Mrs. Wm. C.
Sowers, E. U.	Weber, Joseph, Jr.
Spear, James, Jr.	Welles, Mrs. Edward
Spencer, Robert L.	Welsh, Miss Elizabeth R.
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Stephens, A. W.	White, Charles A.
Stirn, Mrs. L. A.	Whitmarsh, Mrs. A. H.
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Strietmann, William L.	Willis, A. Hunter
Suter, F. L.	Winsor, Miss Ellen
Swift, Miss Mary L.	Woolworth, Miss Clara B.
Taylor, Miss Anna H.	Yetman, Arthur H.
Thomson, Mrs. F. G.	

CONTRIBUTIONS TO BUILDING FUND
TO NOVEMBER 1, 1923

Previously reported	\$3,534 25	Hubbard, Miss Martha W.	\$1 00
Althouse, H. W.	10 00	Hunter, Arthur M.	25 00
Alvord, George B.	25 00	Interest received	35 07
Belden, Mrs. Hannah	15 00	Jacobs, Miss Matilda	2 00
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Boardman, Miss Stella	2 00	Kimberly, Miss Mary	10 00
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Bryant, Charles E.	10 00	Livingston, Major A. R.	25 00
Capewell, George J., Jr.	5 00	Lowell, Sidney V.	5 00
Carpenter, C. L.	10 00	McCord, Mrs. W. E.	5 00
Chahoon, Mrs. George, Jr.	35 00	McKittrick, Thos. H., Jr.	5 00
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Clowes, F. J.	10 00	Masters, Francis R.	10 00
Cook, Miss Mildred E.	4 00	May, Miss A.	5 00
Crabbe, Mrs. Charles	5 00	Mellns, J. T.	2 00
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Doylestown (Pa.) Nature Club	5 00	Oregon Audubon Society	100 00
Edwards, Miss Elizabeth S.	25 00	Raymond, Mrs. C. E.	5 00
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Greene, Gardiner	1 00	Valentine, Mrs. Grace E.	1 00
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Harriman, Mrs. J. Low	35 00	Walker, Miss Alice L.	50 00
Harvey, Edward J.	5 00	White, John Jay	5 00
Haselton, Mrs. A. S.	10 00	Willcox, Miss Katherine A.	2 00
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Hentz, Leonard S.	100 00	Woodman, Miss Mary	50 00
Heroy, Miss Anne P.	5 00		
Horton, L. M.	3 00		
			\$4,402 32

CONTRIBUTORS TO CHILDREN'S EDUCATIONAL FUND

From October 1 to November 1, 1923

Abbot, Miss Marion S.	\$2 00	Emery, Miss Georgia Hill	\$3 00
Achelis, Miss E.	10 00	Emery, Miss Mary E.	25 00
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Bingham, William, 2d	100 00	Goodwin, Mrs. H. M.	5 00
The Bird Club of Long Island	1,500 00	Gordon, Mrs. Donald	75 00
Blade, Mrs. Wm. M., Jr.	10 00	Gore, John K.	10 00
Boettger, Robert	5 00	Graham, Charles E.	5 00
Bok, Mrs. Edward	100 00	Haass, Mrs. Lillian Henkel	5 00
Bonbright, Miss Elizabeth M.	2 00	Hamilton, Mrs. H. R.	50 00
Book, C. H.	5 00	Hamlin, Mrs. Eva S.	10 00
Bowdoin, Miss Edith G.	25 00	Harding, Miss Gena Russell	25 00
Bowles, Mrs. H. L.	5 00	Harkness, Mrs. W. L.	100 00
Bradford, Miss Elizabeth F.	100 00	Harriman, Mrs. Edward Henry	100 00
Butterworth, Mrs. Wm.	50 00	Haskell, Mrs. W. A.	50 00
Calkins, Mrs. Alice H.	10 00	Haynes, Miss Caroline C.	5 00
Case, Miss Louise W.	10 00	Hecker, Frank J.	100 00
Chase, Miss Alice P.	100 00	Hills, Mrs. Geo. F.	5 00
Cheney, Louis R.	10 00	Hoe, Richard M.	50 00
Clark, George H.	25 00	Hoe, Mrs. Richard M.	25 00
Clark, Miss L. Elizabeth	1 50	Horsford, Miss Cornelia C. F.	5 00
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Cornell, Mrs. H. P.	10 00	Kirby, Fred M.	100 00
Cowl, Mrs. Clarkson	10 00	Koppelman, Charles H.	25 00
Cram, Miss Lily Clarence	50 00	Lansing, Mrs. G. Y.	100 00
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Cullinan, J. S.	100 00	Lewis, Mrs. Herman E.	10 00
Curtis, James F.	10 00	Livingston, Major A. R.	10 00
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Danforth, H. G.	5 00	Mallinckrodt, Edward	50 00
Davol, Miss Florence W.	2 00	Marburg, Miss Emma	100 00
Day, Mrs. Frank A.	5 00	Marmon, Mrs. Elizabeth C.	100 00
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Dodge, Mrs. Cleveland H.	50 00	Mason, Edward F.	5 00
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duPont, Mrs. Pierre S.	25 00	Moore, Mrs. Paul	100 00
Dyett, Mrs. James S.	50 00	Morehead, J. M.	100 00
Edge, Mrs. C. N.	5 00	Morris, Mrs. Lewis R.	100 00
Edwards, Mrs. E. P.	5 00	Nesbitt, Abram G.	100 00
Elser, Albert C.	20 00	Newbury, Mrs. Lee	10 00

CONTRIBUTORS TO CHILDREN'S EDUCATIONAL FUND, continued

Nichols, Mrs. William G.	\$10 00	Slattery, John R.	\$25 00
Oliver, Mrs. James B.	10 00	Smith, Francis Drexel	5 00
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Rassieur, Leo	5 00	Swift, Charles H.	100 00
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Sears, Miss Mary P.	15 00	Wister, John C.	10 00
Seaverns, Charles F. T.	25 00	Wood, Mrs. William M.	100 00
Seinsheimer, Mrs. Henry A.	5 00	Woodman, Miss Mary	25 00
Shattuck, Geo. C.	5 00	Zabriskie, Mrs. Cornelius	50 00
Sheldon, James	5 00		
Short, William	30 00		
Sinclair, H. R.	25 00		
			<hr/>
			\$7,798 50



PROF. WILLIAM G. CRAMER
President Ohio Audubon Society

Report of the National Association of Audubon Societies and Affiliated Organizations for the Year Ending October 19, 1923

TABLE OF CONTENTS

REPORT OF T. GILBERT PEARSON, PRESIDENT

INTRODUCTION.—GENERAL NOTES.—FIELD AGENTS.—STATE AUDUBON SOCIETIES AND BIRD CLUBS.—ORGANIZATIONS FORMALLY AFFILIATED WITH THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES, OCTOBER 19, 1923.—JUNIOR CLUBS.—GUARDING BIRD COLONIES.—MISCELLANEOUS AND FINANCIAL.—A BUILDING NEEDED.

REPORTS OF FIELD AGENTS

EDWARD HOWE FORBUSH, FOR NEW ENGLAND; WILLIAM L. FINLEY, FOR PACIFIC COAST STATES; EUGENE SWOPE, FOR OHIO; ARTHUR H. NORTON, FOR MAINE; MRS. MARY S. SAGE, FOR LONG ISLAND, NEW YORK; FRANCES A. HURD, SCHOOL SECRETARY FOR CONNECTICUT; HERBERT K. JOB, DEPARTMENT OF APPLIED ORNITHOLOGY; J. M. JOHNSON, SPECIAL AGENT IN THE ROCKY MOUNTAINS NATIONAL PARK.

REPORTS OF STATE AUDUBON SOCIETIES

CALIFORNIA, COLORADO, CONNECTICUT, DISTRICT OF COLUMBIA, FLORIDA, ILLINOIS, INDIANA, KANSAS, MASSACHUSETTS, MICHIGAN, MINNESOTA, MISSOURI, NEW HAMPSHIRE, NEW JERSEY, NORTH DAKOTA, OHIO, OREGON, RHODE ISLAND, UTAH.

REPORTS OF OTHER AFFILIATED ORGANIZATIONS

AUDUBON CLUB OF NORRISTOWN (PA.).—AUDUBON COMMITTEE, SAGINAW (MICH.) BRANCH, THE AMERICAN ASSOCIATION OF UNIVERSITY WOMEN.—BANGOR (MAINE) BIRD CONSERVATION CLUB.—BIRD CLUB OF LONG ISLAND.—BIRD LOVERS' CLUB OF BROOKLYN (N. Y.).—BROOKLINE (MASS.) BIRD CLUB.—CAYUGA (N. Y.) BIRD CLUB.—CHAUTAQUA (N. Y.) BIRD AND TREE CLUB.—COCOANUT GROVE (FLA.) AUDUBON SOCIETY.—COLUMBUS (OHIO) AUDUBON SOCIETY.—COMMUNITY BIRD CLUB OF WOODSVILLE (N. H.) AND WELLS RIVER (VT.).—CUMBERLAND COUNTY (MAINE) AUDUBON SOCIETY.—DAYTON (OHIO) AUDUBON SOCIETY.—DOYLESTOWN (PA.) NATURE CLUB.—ELGIN (ILL.) AUDUBON SOCIETY.—HAMILTON (CANADA) BIRD PROTECTION SOCIETY.—HARTFORD (CONN.) BIRD STUDY CLUB.—HESSTON (KANS.) AUDUBON SOCIETY.—LOS ANGELES (CALIF.) AUDUBON SOCIETY.—MINNEAPOLIS (MINN.) AUDUBON SOCIETY.—MONTCLAIR, (N. J.) BIRD CLUB.—NATURE CLUB OF PRINCETON (N. J.).—NATURE CLUB OF ULSTER (PA.).—NATURAL HISTORY SOCIETY OF BRITISH COLUMBIA (CANADA).—NEWARK (N. J.) BIRD CLUB.—ONONDAGA (N. Y.) COUNTY BIRD CLUB.—PASADENA (CALIF.) AUDUBON SOCIETY.—PROVANCHER SOCIETY OF NATURAL HISTORY OF CANADA.—RACINE (WIS.) BIRD CLUB.—RHINEBECK (N. Y.) BIRD CLUB.—ROCKAWAY (N. Y.) BIRD CLUB.—ST. LOUIS (MO.) BIRD CLUB.—ST. PETERSBURG (FLA.) AUDUBON SOCIETY.—SANDHILLS (PINE BLUFF, N. C.) BIRD CLUB.—SARATOGA (N. Y.) BIRD CLUB.—SAVANNAH (GA.) AUDUBON SOCIETY.—SCRANTON (PA.) BIRD CLUB.—SEWICKLEY VALLEY (PA.) AUDUBON SOCIETY.—SOUTH HAVEN (MICH.) BIRD CLUB.—STANTON (MAINE) BIRD CLUB.—STATEN ISLAND (N. Y.) BIRD CLUB.—TEXAS BIRD AND NATURE STUDY CLUB.—TOPEKA (KANS.) AUDUBON SOCIETY.—VIGO COUNTY (IND.) BIRD CLUB.—WEST CHESTER (PA.) BIRD CLUB.—WILTON (MAINE) BIRD CLUB.—WILD LIFE LEAGUE OF WEST VIRGINIA.—WYNCOTE (PA.) BIRD CLUB.

LIST OF AFFILIATED ORGANIZATIONS

REPORT OF TREASURER

REPORT OF AUDITING COMMITTEE

REPORT OF T. GILBERT PEARSON, PRESIDENT

INTRODUCTION

Sometime ago Prof. Henry Fairfield Osborn issued a widely quoted statement that the animal kingdom was tottering. "For," said he, "nothing in the history of creation has paralleled the ravages of the fur and hide trade, which, with the bone fertilizer trade, now threatens the entire vertebrate kingdom." His warning was concluded with these words, "The final cause of the Close of the Age of Mammals can be arrested only through the creation of sound sentiment and education of the children and of women, in the same manner in which the National Association of Audubon Societies has arrested the destruction of birds."

As is well known, the influence of the Audubon Society, exerted through long years of effort, has been rewarded with profound success, not only in checking the slaughter of non-game birds, but in actually increasing the numbers of some species to a point probably much greater than they ever existed in this country before. The efforts of this Association, as well as those of numerous sportsmen's organizations and state and Federal departments have been far less successful in the matter of preserving game-birds and game-animals, certain species of which are already exterminated over great areas of their former range. The problem which the people of the United States have tried to solve is how to preserve an adequate breeding stock of game, and at the same time allow a maximum amount of legal killing.

Restrictive legislation and large forces of active game wardens are essential agencies in the preservation of those forms of wild life which are shot for sport and food. These two influences are not sufficient, however, to prevent a rapid passing of many creatures which it is desirable to preserve. Apparently, there is no possibility of success in this field unless to the forces mentioned there is added an educational campaign of a magnitude never yet undertaken in connection with wild-life preservation. Such a campaign can be successful only by the active, insistent efforts of every scientific society and institution, all organizations of every character interested in the public welfare, and by a propaganda carried forward by scientific, and especially, popular magazines and by the daily, weekly, and monthly press. No small portion of this great responsibility in arousing these various agencies to the profound need of making this a national issue rests upon the workers and friends of the Audubon Societies.

This Association should have at this very moment at least one very capable man or woman lecturing constantly in every state in the Union.

GENERAL NOTES

The past year has witnessed a growth in membership and in the work of the Association. In the home office, located at 1974 Broadway, a large, well-trained office force has been constantly engaged in issuing propaganda on the subject of wild-bird and animal-protection, in conducting correspondence on innumerable phases of the subject for which we are incorporated, including answers to inquiries from all over North America and elsewhere, supplying school children with bird-study material, receiving and waiting upon the wants and pleasures of many visitors, and in discharging large masses of other routine duties.

The Association has backed beneficial legislation wherever opportunity offered, and we were especially active in supporting the Federal Game-Refuge Bill which so unhappily was lost during the closing days of Congress. A similar bill, it may be added, will undoubtedly be introduced at the coming session of Congress, and all those interested in the preservation of the game-birds of North America should give it their most hearty support.

Your president, in addition to his office duties, has attended many conferences and addressed audiences in various states. In the interests of the cause of international bird-protection, he visited England, France, Switzerland, Hungary, and Italy the past year to study wild-life conditions in these countries and to seek the support of leaders in scientific societies and institutions in the interests of the International Committee for Bird Protection, established in London on June 20, 1922.

It is a pleasure to announce a recent gift to the Association of a tract of land covering 11½ acres at Oyster Bay, New York, which is to be developed and maintained as a bird sanctuary. This property, presented by W. Emlen Roosevelt, is virtually a jungle, and, therefore, an ideal place for land-birds. It surrounds on three sides the Young's Memorial Cemetery where Colonel Roosevelt lies buried. Here our Board is planning to erect our Roosevelt Bird Fountain, and a house leased to the Association by the trustees of the Young's Memorial Cemetery will be the local headquarters and home of the guardian in charge of the sanctuary.

FIELD AGENTS

The principles of bird-study and bird-protection, as expounded by this Association, are carried afield by certain agents especially selected for this particular purpose. Our agent for New England is Edward H. Forbush, one of the most useful and modest conservationists that the country has produced. It would be hard to overestimate the influence which for the past twenty years or more he has exerted for the cause of bird-protection throughout the country generally, and in New England especially. Besides producing a continuous stream of publications, he is constantly carrying his message of bird-protection to scores and hundreds of audiences.

On our records the name of William L. Finley officially appears as representative for the Pacific Coast. In all truth this record should read 'William L. and Irene Finley,' for Mrs. Finley has been his constant aid and companion, not only in his photographing trips afield but in his lecture tours throughout the United States. His influence is constantly increasing as his work broadens.

Miss Frances A. Hurd, school secretary for the Association in Connecticut, continued her activities in the schools the past year, working with teachers and lecturing to pupils.

In the same way, Mrs. Mary S. Sage operated on Long Island. With the financial aid of the Bird Club of Long Island, the Association has been able to engage her entire time for the past four years.

Arthur H. Norton, field agent for Maine, keeps a watchful eye on the forty or more breeding colonies of water-birds off the coast of that state. He raises his voice in connection with every contemplated change in the state bird-protective laws, gives public addresses, conducts field-walks, and in other ways brings home the lessons of bird-study to the people of his state.

Herbert K. Job, in charge of the Department of Applied Ornithology, not only has continued his lecture work with slides and moving pictures, but has been further developing the experimental breeding of game-birds at Amston, Conn., where, the past summer, he also conducted a summer school of bird students.

Dr. Eugene Swope, in Ohio, has continued his general field agent duties and was largely responsible for the formation of the 739 Junior Audubon Clubs recorded from that state the past year.

Through the financial assistance of one of our loyal members, Mrs. C. Oliver Iselin, we were able to employ Henry Oldys for several weeks' lecture trip throughout South Carolina.

Julian M. Johnson delivered lectures and conducted bird-walks as naturalist in the Rocky Mountains National Park. We secured his services through the coöperation of the National Parks Service.

Reports from a number of these agents have been made and detailed accounts of their work are published in connection with this report.

STATE AUDUBON SOCIETIES AND BIRD CLUBS

State Audubon Societies, local Audubon Societies, Bird Clubs, and a variety of other organizations, all interested in the study and protection of wild bird and animal life, to the number of 141 are today formally affiliated branches of the National work. These are distributed throughout 35 states and in 3 provinces of Canada. A number of these have made reports of their activities during the past year and these are published in connection with this report. The Association is glad to assume the expense of collecting and publishing these different accounts of bird-work throughout the country, not only for the

purpose of placing these achievements on permanent record, but in order that officers and members of every such organization will thus have opportunity of learning what other similar societies and clubs are doing. Even casual reading of these reports will show an astonishingly wide field of endeavor, including public lectures, bird-study classes, exhibits, establishing and maintaining bird sanctuaries, giving radio talks, newspaper publicity, field-trips to study birds, and the publication of bulletins and reports.

One of the sad features of our organization is that we are so widely scattered it is impossible to keep in close and personal contact. Every year your president visits as many of these organizations as he finds possible, with his other numerous duties, and during the year a considerable number of the officers and members of affiliated organizations give us the pleasure of calls at the home office. Would that it were possible to have at least one representative from every branch at the annual meeting here in New York!

Below is given a list of all affiliated societies and clubs, together with the names and addresses of the president and secretary in so far as they have been reported.

ORGANIZATIONS FORMALLY AFFILIATED WITH THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES, OCTOBER 19, 1923

STATE AUDUBON SOCIETIES

CALIFORNIA:

President, Wilfred Smith, Box 163, Altadena, Calif.

Secretary, Miss Helen S. Pratt, 2451 W. Ridgeway Ave., Los Angeles, Calif.

COLORADO:

President, E. R. Warren, 1511 Wood Ave., Colorado Springs, Colo.

Secretary, Mrs. B. S. Elliott, 1 Scott St., Broadmoor Park, Colorado Springs, Colo.

CONNECTICUT:

President, Mrs. Mabel Osgood Wright, Fairfield, Conn.

Secretary, Miss Charlotte A. Lacey, Southport, Conn.

DISTRICT OF COLUMBIA:

Acting President, Dr. T. S. Palmer, 1939 Biltmore St., N. W., Washington, D. C.

Secretary, Miss Helen P. Childs, Chevy Chase, Md.

EAST TENNESSEE:

President, Rev. Angus McDonald, 1322 Tremont St., Knoxville, Tenn.

Secretary, Miss Magnolia Woodward, Chestnut Hill, Knoxville, Tenn.

FLORIDA:

President, Mrs. Katherine Tippetts, St. Petersburg, Fla.

Secretary, S. W. Foster, St. Petersburg, Fla.

ILLINOIS:

President, O. M. Schantz, 10 S. La Salle St., Chicago, Ills.

Secretary, Miss Catherine A. Mitchell, 10 S. La Salle St., Chicago, Ills.

INDIANA:

President, Allan Hadley, Monrovia, Ind.

Secretary, S. E. Perkins, 3d, 203 City Trust Bldg., Indianapolis, Ind.

KANSAS:

President, R. E. Booth, Security State Bank, Wichita, Kans.
 Secretary, Madeleine Aaron, 1235 N. Emporia Ave., Wichita, Kans.

MASSACHUSETTS:

President, Edward Howe Forbush, 136 State House, Boston, Mass.
 Secretary, Winthrop Packard, 66 Newbury St., Boston, Mass.

MICHIGAN:

President, Mrs. Edith C. Munger, Hart, Mich.
 Secretary, Geneva Smith, 106 Summit St., Ypsilanti, Mich.

MINNESOTA:

President, J. W. Taylor, 206 Globe Bldg., St. Paul, Minn.

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JUNIOR CLUBS

The interest among teachers and pupils in the formation of Junior Audubon Clubs is growing constantly. The members in these Clubs, organized during the past school year, numbered over 33,000 more than during the year ending June 1, 1922.

While the financial support for this work has not yet reached a point where it is possible to advance the endeavor with an energy commensurate with the field of opportunity, it is a pleasure to be able to say that through the aid of interested friends the directors have been enabled to publish for use the coming year more bird-study material than usual.

If all organizations affiliated with the Association and otherwise interested in advancing the cause of bird-protection should undertake to bring the very unusual offer of the National Association to the attention of their local teachers and pupils, the 300,000 sets of literature prepared for this year can readily be utilized. Teachers and pupils generally receive the proposition gladly when it is presented to them. The fee which the child pays is only 10 cents, and it costs the Association 20 cents to supply each child with the colored pictures of birds, leaflets, and button provided. A teacher who forms a club of twenty-five or more receives free for one year the magazine BIRD-LORE.

One of our difficulties results from the impossibility of treating in this bird-study literature birds common to every community in the United States. This need could only be met by preparing a series of sets adaptable for various sections of North America. Of course, this cannot be done without greater means at our disposal. This year, however, we have prepared an extra set of six leaflets dealing with birds found on the Pacific Coast, in an endeavor to coöperate more fully with the workers in our affiliated branches in that territory, and supply the children with pictures of birds with which they are familiar. We could well use in this way six or eight other sets of literature were the means at hand to accomplish this.

By the financial coöperation of the National Parks authorities in Canada, we have prepared also a supply of 25,000 sets of leaflets published in the

French language for use in that section of Canada where the French language is largely spoken and almost exclusively taught in the schools.

During the past year, 6,383 Junior Clubs were organized in the United States and Canada. These represented a Junior enrollment of 250,185. The distribution by states was as follows:

STATEMENT SHOWING NUMBER OF JUNIOR AUDUBON CLUBS ORGANIZED AND MEMBERS ENROLLED DURING THE PAST YEAR, 1922-1923

STATES	CLUBS	MEMBERS
Alabama.....	21	750
Arizona.....	5	208
Arkansas.....	19	742
California.....	144	5,104
Colorado.....	51	1,832
Connecticut.....	272	9,876
Delaware.....	16	530
District of Columbia.....	7	263
Florida.....	54	3,610
Georgia.....	72	2,532
Idaho.....	18	685
Illinois.....	223	9,092
Indiana.....	189	7,842
Iowa.....	110	4,032
Kansas.....	56	2,005
Kentucky.....	41	1,518
Louisiana.....	38	1,584
Maine.....	41	1,469
Maryland.....	68	2,599
Massachusetts.....	408	17,355
Michigan.....	119	5,436
Minnesota.....	212	7,858
Mississippi.....	5	230
Missouri.....	139	5,032
Montana.....	25	808
Nebraska.....	69	2,280
Nevada.....	9	271
New Hampshire.....	46	1,613
New Jersey.....	309	12,780
New Mexico.....	7	257
New York.....	940	40,383
North Carolina.....	25	800
North Dakota.....	29	937
Ohio.....	739	25,148
Oklahoma.....	30	839
Oregon.....	45	2,559
Pennsylvania.....	902	38,530
Rhode Island.....	8	333
South Carolina.....	51	1,648
South Dakota.....	29	1,149
Tennessee.....	26	931

STATES	CLUBS	MEMBERS
Texas.....	32	1,331
Utah.....	30	1,026
Vermont.....	30	1,013
Virginia.....	73	2,629
Washington.....	65	2,564
West Virginia.....	54	2,017
Wisconsin.....	177	6,354
Wyoming.....	9	361
Canada.....	296	9,251
Totals.....	6,383	250,185

GUARDING BIRD COLONIES

The protection afforded by this Association for many years to the principal breeding colonies of birds along the Atlantic and Gulf Coasts of the United States has resulted in large increases in some of the species after having reached an extremely low ebb as result of killing for the feather trade.

Herring Gulls, Laughing Gulls, and various Terns are now to be found by tens of thousands. The Herring Gull, in fact, has become so numerous and complaints of its depredations on Terns, domestic fowls, and sheep-pastures have become so frequent that the Board has not felt it necessary to continue to protect some of its breeding colonies.

The educational work of the Audubon Society and those who have been drawn into the field of conservation as one result of its efforts, have so educated the public that there is little danger of any wholesale slaughter of this bird at the present time. Our coast, however, can well support a population of some hundreds of thousands more Terns than we yet possess, so the protection of the breeding places of these beautiful and harmless creatures is carefully continued.

There is still great work to be done in preserving the Egrets of the South, as this and other species of the Heron family continue to be shot when occasion gives opportunity. Mr. R. T. Berryhill, Jr., one of our Egret and Heron wardens in Georgia, recently reported:

"I had very little trouble this season guarding the birds. Once I found a Little Blue Heron which had been crippled in both legs. The fellow who did it no doubt was sorry he did the shooting, for when I found the bird its legs had been done up with splints and adhesive tape."

It is, of course, always difficult to make a very close estimate of the numbers of birds resorting to the breeding colonies of this Association which extend along the coast all the way from Maine to a point within a few miles of the Mexican border, as well as in many inland swamps of our southern states. At this time I shall attempt to enumerate only the more numerous and important species protected by these agents of the Association:

Black Guillemot, Puffin, Eider Duck, Black Duck, Wood Duck, Great Blue Heron, Ward's Heron, Black-crowned Night Heron, Yellow-crowned Night Heron, Little Blue Heron, Louisiana Heron, Little Green Heron, Egret, Reddish Egret, Snowy Egret, Least Bittern, Florida Gallinule, Purple Gallinule, Herring Gull, Laughing Gull, Black Skimmer, Caspian Tern, Royal Tern, Forster's Tern, Wilson's Tern, Least Tern, Roseate Tern, Gull-billed Tern, Water Turkey, and Roseate Spoonbill.

The names of the wardens who served the Association the past year are as follows: Charles R. Beal, Maine; George E. Cushman, Maine; Frank O. Hilt, Maine; Elisha G. Bunker, Maine; Woodbury M. Show, Maine; Fred E. Small, Maine; George B. McRay, Massachusetts; Merton H. Edwards, New York; Samuel D. Crammer, New Jersey; Julian Brown, North Carolina; J. R. Andrews, Virginia; R. F. Grimball, South Carolina; Arthur T. Wayne, South Carolina; L. A. Beckman, South Carolina; R. T. Berryhill, Jr., Georgia; W. S. Odum, Georgia; L. Ashburner, Florida; M. N. Gist, Florida; S. Eliot Bouknight, Florida; Robert H. Stirling, Louisiana; John A. Carruthers, Louisiana; Albert Matulich, Louisiana; and R. D. Camp, Texas.

MISCELLANEOUS AND FINANCIAL

The Association continues to maintain a Supply Department. This is not a source of income, but it is conducted for the purpose of helping to distribute the Association's literature and in aiding members and friends to secure bird-pictures, field-glasses, and other bird-study helps from a reliable source.

During the year 538 stereopticon slides were sold, as well as several thousand dollars' worth of charts, books, field-glasses, and other objects of interest to the bird student. We published 2,015,000 Educational leaflets and colored pictures of American birds, also other circulars of various kinds to the number of 780,000.

Pursuing the policy which we have carefully followed for the past thirteen years, our various activities have been carried on only to such an extent as visible means would justify. Again we have been fortunate in closing the fiscal year with a surplus in all our various funds. The management prefers to do this rather than yield to too many of the insistent calls for expenditures which would quickly lead us into debt and place us in a position where we could only hope that out of the blue some shining angel might suddenly appear and make up the resultant deficits. The expenses of the work the past year have all been met, therefore, and in addition it is a pleasure to be able to report the following increases in the Endowment Fund: \$1,000 from W. F. Chandler, of California, in payment for membership as a patron; \$100 each from the 135 new life members enrolled; a bequest of \$15,000 from one of our deceased members, David D. Davis, of New Hampshire; \$451, miscellaneous gifts, and \$1,956.76 transferred from the General Fund surplus. These

combined make a total addition to the general Endowment Fund the past year of \$31,837.76. The sustaining membership, the fee for which is \$5 annually, has this year advanced from 4,553 to 5,995. The total income of the Association for the year was \$175,326.20.

A BUILDING NEEDED

The Audubon Societies should have as their home a building where adequate arrangements for present and future needs could be supplied. At present the headquarters in New York is crowded into a small series of offices which for the past three years have been taxed to their utmost capacity. There is no room in which to place another desk, hang another picture, store another book, or exhibit another bird-box. We have extremely inadequate space for receiving visitors properly. There are no exhibit rooms for bird-attracting apparatus and half of our already valuable conservation library is in storage. We should have a home where all these and other needs might be supplied, where conventions might assemble, and where teachers and others might gather for instruction on bird-study and bird-protection.

Some months ago the Board directed that this matter be brought to the attention of the members and notice in reference to it was issued. Members and friends were asked to contribute to a Building Fund, the money to be used for the purchase or erection of an adequate building for the Audubon Societies. No drive has been started nor is any contemplated for the present, but we do urge that members and affiliated societies make a point of contributing something to the fund each year when paying their membership fees. Thus there is given an opportunity for everyone, without any hardship, to have some part in what will ultimately be the headquarters of the bird-protective forces in this country. Up to the present time 324 members and affiliated clubs have sent in checks totaling \$4,402.32. Thus a beginning has been made. These and all subsequent gifts will be preserved carefully and all accruing interest added to the principal. Most large associations of which the speaker has any knowledge have their own buildings. Surely the cause of wild-life protection is of sufficient importance to justify the hope that before a great while the National Association of Audubon Societies may be properly and comfortably housed.

REPORTS OF FIELD AGENTS

REPORT OF EDWARD HOWE FORBUSH, FIELD AGENT FOR NEW ENGLAND

Notwithstanding the advance made in recent years in bird-protection in New England, there is still much that needs to be done. We have laws prohibiting foreigners from carrying guns, yet they continue to carry 'concealed weapons,' and, with them, to destroy song-birds. Many foreigners, with birds in their possession, have been arrested during the past year in New England. Doubtless many more of these law-breaking fellows are still at large. By concealing the guns and the game about their persons they manage to evade the officers. There are not, and never will be, wardens enough to enforce the bird-protective laws. Such educational work among foreigners, as well as among the native population, as is done by the Audubon Societies is as imperative now as ever.

Many gunners do not observe the Federal law protecting the smaller shore-birds. Although nearly all gunners know the law, many of them do not know the birds. Therefore, some are shot by mistake, while many shooters knowingly break the law. Any statute which exempts most of the species of a family or order and allows the killing of a few must necessarily be difficult of enforcement, for many gunners when out shooting, not finding unprotected game to shoot, will shoot protected birds. Nevertheless, the law is respected to a certain extent, apparently, and has increased the number of shore-birds along our coast. This is evident, particularly in spring, when the returning birds are not subjected to shooting except by a very few persistent law-breakers. They appear now in larger numbers than in former years.

The protection of individual species has had some effect: For example, the Piping Plover, which formerly was almost exterminated along the New England shores, has increased fast under such protection and is nesting now in almost every suitable place along our coast. There is a slight increase of the Upland Plover and a considerable accession of the numbers of the Wood Duck, both of which have been protected for years by most of the New England states, and are still protected under the Federal law. During the last year, however, there has been no visible increase of the two latter birds generally in New England. Gulls, protected at all times by law, are evidently increasing. The Laughing Gull, once almost extinct in New England, has increased to great numbers on the Muskeget Island and is now scattered all along the coast of Massachusetts, during the breeding season as far north at least as Boston. Terns have been less fortunate than usual during the past year, although there is evident some increase of Least Terns which in recent years have found new nesting-places and have worked farther north along the coast. This increase, however, cannot continue indefinitely, as Terns breeding on the coast are

attacked by many enemies and are obliged to 'keep moving.' Islands are the only safe breeding-places. The Arctic, Roseate, and Wilson's or Common Terns, have been holding their own fairly well, but are continually disturbed more and more by summer visitors and every year lose large numbers of young. They cannot be permanently protected on our coast unless the islands on which they breed can be acquired by some association and watched during the season by efficient guardians. If this is not done soon, most of these islands will be taken over for summer cottages, and the Terns will have no safe place to breed.

Penikese Island is still in the hands of the Commonwealth of Massachusetts, but unless legislation can be enacted to prevent its sale, it will be sold at the first opportunity. Egg Rock, formerly in the hands of the United States Government, has been given up as a lighthouse station, and your agent understands that it now reverts to the Commonwealth of Massachusetts. It should be reserved as a breeding-place for Terns, which, no doubt, formerly bred there in large numbers. The increase of Gulls about Muskeget Island (where Herring Gulls are now breeding, and where, as hereinbefore stated, there is a great concourse of Laughing Gulls) has apparently depleted the number of Terns, which now occupy only a small part of the island and may be driven off eventually by the increase of Gulls.

During the past winter many complaints have been received regarding the destruction of fruit-buds, particularly apple-buds, by Ruffed Grouse. Complaints in regard to this matter have come from every New England state, and fabulous sums are reported to have been lost by such destruction. The Conservation Commissioner of New Hampshire paid out considerable sums to farmers, to repay them for the destruction of fruit-buds by Grouse, and legislation to remove protection from the birds was proposed in several New England states. Investigations made in Massachusetts by Messrs. Winthrop Packard and Harry Higbee, of the Massachusetts Audubon Society, indicate that the damage done here by these birds has been much exaggerated. Undoubtedly, however, injury has been done. As the Ruffed Grouse is now evidently increasing in numbers throughout most of New England, we may expect during the coming winter another attempt to enact legislation to remove protection from the birds or to award damages to the farmer for the destruction of his fruit.

Everything now points to the possibility of failure in the endeavor to protect the Heath Hen from extinction. Since the year of the great fire which swept over Martha's Vineyard, very few female Heath Hens have been observed, and although there was some increase for a year or two after the fire, the decrease since then has been alarming. It is doubtful if there are now fifty birds left on the Island. Nevertheless, some females and young birds were seen this year, and it may be that the species can be increased by further care and protection. The attempt to save the species should not be given up.

Apparently, in this region, the wearing of birds' plumage for millinery

purposes is decreasing, as a result, in part, of recent laws protecting the birds of the world together with the enforcement of Massachusetts laws for bird-protection, but probably more largely as a result of the active educational work done by the Audubon Societies. Yet there is still smuggling of plumes and feathers into this country. The organization and enlargement of a world league for bird-protection, already inaugurated by the President of the National Association of Audubon Societies, undoubtedly will have a beneficial effect in an educational way, and also will tend to prevent throughout the world the traffic in the feathers of wild birds for millinery purposes.

REPORT OF WILLIAM L. FINLEY, FIELD AGENT FOR THE PACIFIC COAST STATES

Eternal vigilance is necessary if nature-lovers expect to stop the continued destruction of wild birds and animals. Even on reservations that have been established for wild life, the trend of commercialism is to drive the remaining wild creatures to a point of final disappearance. Starting out with four Federal wild-bird reservations in Oregon, one of the greatest of these, Lower Klamath Lake, has been practically destroyed by irrigationists who have shut off all water from the lake and dried it up. Malheur Lake, our best Federal reservation, still hangs in the balance with a long legal fight ahead. Tule or Rhett Lake, on the Oregon-California boundary east of Lower Klamath, although not in a Federal reservation, was until recently a great breeding- and resting-place for wild fowl and it has been dried up completely. Three Arch Rocks Reservation, off the Oregon coast, has been raided continually by violators for the past two years, slaughtering sea lions and disturbing the birds during the breeding-season by shooting around the rocks.



A PET BADGER AND 'PETE' WHO HAS BEEN FEATURED IN FINLEY FILMS



THIS COLONY IN TULE LAKE DESTROYED BY DRAINAGE

One of the hardest fights this Association will have in the future to save wild fowl is to stop the continual draining of lakes and swamps which are the ancestral breeding-grounds of water-birds. There are some cases through the northern parts of the United States and in the West where a certain amount of agricultural land has been opened up by drainage, and this lends continual encouragement to promoters with engineering schemes to dyke and drain every available lake, pond, and swamp throughout the country. To counteract these schemes, continued publicity is necessary to show that many of these bodies of water are of greater value for recreational purposes, to produce food-fish and fur-bearing animals, and to breed and feed Ducks, Geese and other water-fowl, than they would be for any purpose if drained.

The investigation of Malheur Lake Reservation by the state, during the past summer, for the purpose of deciding whether the state would accept the compromise proposed by the Biological Survey of the Department of Agriculture, has resulted in no definite action. State Engineer Cupper, who opposed our Malheur bill, has been replaced by a new state engineer and the matter is now in his hands for a report. Governor Pierce has written me as follows:

"I am very anxious to see this matter settled without litigation, but I very much see that all parties interested will not be satisfied until the matter is settled by a decree of last resort."

The reason why it will be difficult to get a settlement without resorting to the courts is that certain large land-owners are determined to get rights on the

waters of the Silvies and Blitzen Rivers, which, if granted, would sooner or later cut off the water-supply from the reservation and ruin it. It seems pretty definitely settled that the Government can hold indefinitely a large part of the area of the present reservation, but the adjustment of water rights is such a complicated problem that it will be many years before this can be settled. In the meantime, the Government has possession, and we hope possession is the proverbial nine points of law.

A most striking case of overthrowing the balance of nature occurred in the country east of Lower Klamath Lake where Tule Lake has been dried up. The whole country was overrun with a great pest of grasshoppers. According to C. A. Henderson, County Agent of Klamath County, the loss of crops from



CALIFORNIA GULL COLONY DESTROYED BY THE DRYING UP OF LOWER KLAMATH LAKE.
THESE BIRDS WERE GREAT EATERS OF GRASSHOPPERS

Photographed by Finley and Bohlman

this pest during 1922 was \$200,000. By the purchase of large quantities of poisoned bait, which cost over \$10,000, and with the aid of 325 farmers, some of whom stopped all other work for a month at a time, the loss was greatly reduced in 1923. The Gulls, Blackbirds and other birds that formerly nested in great numbers in these swampy areas were driven out by the destruction of their breeding-places. There were no natural checks upon insects. The losses from these insect pests are bound to be great until the proper equilibrium is restored.

In my report last year, I called attention to the violations of shooting sea lions and disturbing the birds on Three Arch Rocks Reservation. A man by the name of Hunter, employed by the State Fish Commission for the purpose of exterminating sea lions, boasted that he had killed 107 sea lions on Three Arch Rocks Reservation in one trip in the summer of 1922. This information

was in the hands of the Biological Survey at the time and it was thought that they would be able to stop violations during the past summer. Many people who stop at the hotel at Oceanside, on shore opposite the big rocks, have complained about the continual violations, and they feel that very little effort has been made by the Bureau of Biological Survey to protect the birds and mammals on these rocks.

Mr. H. H. Rosenberg, proprietor of the hotel at Oceanside, wrote me on September 18, 1923, as follows:

"On the night of July 3 or 4, a boat laid at anchor by the rocks all night and the next morning two men could be seen on the rocks and it looked to those who saw them that they were carrying something from the rocks to the boat.



FIELD DESTROYED BY GRASSHOPPERS ON TULE LAKE NEAR MERRILL, ORE.

Photographed by C. A. Henderson

We presumed they had killed the sea lion calves with clubs and were carrying their hides or bodies to the boat. No guns were fired as far as we know. After this, for three weeks, bodies of young sea lions kept coming to shore. We buried eleven bodies in front of Oceanside and do not know how many came ashore at the other places along the beach. Some of the residents at Oceanside claim they could read the name 'Hunter' on the side of the power boat that was anchored at the rocks when this work was going on. The writer reported this incident to Mr. Steele, United States Game Warden, the next morning by phone.

"This man Hunter, from Gold Beach, has been staying at Garibaldi nearly all summer with his boat and takes parties out to these rocks and near there on fishing trips and on a good many occasions we could hear them shooting from the boat and the birds would fly up by the thousands. We do not know whether Mr. Hunter does the shooting or others of the party, but we presume

it is done for the sport of killing sea lions or to make the birds fly in the air. In our opinion these parties could be easily apprehended by sending a deputy game warden on a few trips out on the boat. We understand that anyone can go who has the price of a fare. One arrest and a good stiff fine would end the trouble, we believe."

Through a fortunate turn of affairs, it looks as if we are to have one or two areas set aside in the West for the protection of the prong-horned antelope. Two areas where these wild animals still live and which would make good reservations, are a part of Lake County in southern Oregon and a section of northwestern Nevada, and a part of Malheur County in southeastern Oregon, with an extension into southwestern Idaho. This land is largely public domain which is of little or no value except during the spring of the year when it is grazed by sheep and cattle. At present there are no grazing restrictions, and the few stockmen living in these areas are at a disadvantage because of wandering herders who come in from other places and over-graze the land, so the bona-fide residents, who depend upon putting up a certain amount of hay on their own land for winter feeding and using the public land adjoining for spring pasture, are being crowded out. Most of the residents of these two areas are anxious to see Federal reservations established because the grazing privileges will then be restricted to property owners, and they are now taking the initiative.

If reservations are established for antelope, there will be an opportunity to save the Sage Hen, or Sage Grouse. This bird is the biggest of the Grouse family in America. It lives in the open sage-brush country and is easily killed or driven out. The numbers in this state have decreased very rapidly during



THREE ARCH ROCKS RESERVATION, OREGON, WHERE THERE HAS BEEN CONTINUAL VIOLATION OF FEDERAL LAWS FOR THE PAST TWO SUMMERS

Photographed by Wm. L. Finley



SECTION OF MARSH ALONG NORTH SIDE OF TULE LAKE TAKEN IN 1905, NOW COMPLETELY DRIED UP. PART OF REGION INFESTED WITH GRASSHOPPERS

Photographed by Wm. L. Finley and H. T. Bohlman

the last few years. Wherever new roads have been opened and people can travel by automobile, the Sage Hen has almost entirely disappeared. They are completely gone in many places. Reservations will give them a chance. Otherwise this bird is sure to be named in the increasing list of extinct species.

During last winter I made an extended lecture trip through the eastern states. In this time forty-eight lectures were given, illustrated with reels of motion pictures, under the auspices of the National Association of Audubon Societies. Some of the organizations for which I lectured were the Detroit Club, University Club of Buffalo, Westmoreland Club and Boy Scouts of Wilkes-Barre, Pa., Boston City Club, Camp-Fire Clubs in Chicago and New York, Public Museum of Milwaukee, Saint Paul Institute, sportsmen's organizations in Minneapolis, Chicago, Newark, White Plains, Springfield, Mass., Worcester, Mass., St. Louis, women's clubs, Audubon Societies and other organizations in Waterbury, Conn., New Bedford, Mass., Buffalo, Princeton, Wilmington, Boston, Forest Hills, L. I., Hartford, Groton, Mass., Portland, Maine, Manchester, N. H., Massillon, Ohio, Kendalville, Ind., Highland Park, Ills., Evanston, Decatur, Chicago, and Superior, Wis.

I have furnished to Mr. Thornton Burgess a series of three reels of motion pictures, each of which carries the name of the National Association. He uses these reels in lectures and gives our organization a good deal of favorable publicity. In addition to the four reels of motion pictures furnished the National Association last year for educational work, two new reels have been supplied, illustrating bird-life on the Federal reservations.

REPORT OF EUGENE SWOPE, FIELD AGENT FOR OHIO

A bird's-eye view of Audubon work in Ohio the past year affords nothing for discouragement. No legislation inimical to Audubon interests resulted from the last meeting of our General Assembly. The annually threatened intent to secure an open season for shooting Quail was quashed by agrarian interests, as usual. Federal influence back of the Migratory Bird Act is gradually checking the shooting of Doves. It is no longer done openly. Since the Federal Government has taken over the enforcement of migratory bird laws, press accounts of arrests and prosecutions by our state wardens are noticeably fewer. There are two reasons for this: First, our Association's unrelenting educational work is constantly widening and deepening respect for the live bird and the laws protecting it; second, our Game Commission, it seems, has become less attentive to minor violations since Federal wardens have entered the field.

The Ohio Fish and Game Commission has, for the last three years, interested itself primarily in the acquisition of large tracts of land for propagation and shooting purposes. The Commission controls approximately 100,000 acres, in tracts from a few hundred to 15,000 acres, and located in about every county of the state. So much Ohio land has been posted the last eight years, leaving so little to promiscuous shooting, that unless the State Game Commission can make some provision for Ohio sportsmen, they will soon have to go elsewhere for their hunting. These are significant facts in that they reflect the spirit of Ohioans at large in the matter of the protection of wild life.

Your agent tried some new plans to accelerate the increase of Junior Bird Clubs the past year, and with some measure of success, but so far he has found no substitute for the old-fashioned method of hard work and everlastingly keeping at it. It is needless to specify my various efforts in the interest of Junior work. All are summed up in the year's results of 735 Clubs, with a total membership of 25,148. Mr. VanCleve, Nature-Study Supervisor in Toledo schools, showed his appreciation of our Association's offer to help teachers with bird-study work in their classes, for he was largely instrumental in the organization of 174 Audubon Clubs in Toledo schools. The total membership was 5,311. Toledo leads all Ohio cities in this work—probably all cities of the Union.

Your agent had the pleasure of representing our Association, last May, at the National States' Park Conference, held at Turkey Run Park, Indiana. There were 133 registered delegates present, representing about every National, state and society conservation interest. There were two distinct mental attitudes discernible in the delegates. The majority thought of conservation in terms of preserving forests, wild creatures, wild flowers, and natural scenery solely for the *use* and *pleasure* of the people. Then there was a small minority who, while understanding the majority's attitude, and doing nothing to dis-

courage it, thought of conservation primarily as a much-needed corrective against the folly and sinful destruction of the work of nature's Creator. The majority looked to conservation to furnish the masses with a sort of new tangible pleasure. The minority hope that conservation will reserve something of undesecrated nature for the spiritual uplift of the individual. The Conference was an inspiration to all the delegates and will almost certainly quicken all conservation work.

REPORT OF ARTHUR H. NORTON, FIELD AGENT FOR MAINE

The winter of 1922-23 was one of exceptional severity in Maine, with an unusual depth of snow, and with ice closing harbors, sounds, and bays to an extent seldom reached. Robins, Meadowlarks, Snow Buntings, Tree Sparrows, and Shore Larks winter in many parts of Maine and are inconvenienced in some measure by deep snow. On the coast, Black Ducks are the most conspicuous dependents on open conditions. With the freezing of the shorewaters, the many large winter colonies of these Ducks are hard pressed for food and are compelled to congregate about such restricted open places as are to be found in the vicinity of swift currents. Here the supply of food is often inadequate to the demand.

Through the increased interest in bird-life, efforts in their behalf were put forth in many parts of the state where winter colonies of these Ducks existed, and much suffering and mortality were thereby prevented. The several societies for the protection of birds, and innumerable individuals, maintained feeding-stations through the season which were well patronized by the various species of land-birds. The press of the state, as usual, lent its aid freely in arousing interest in the welfare of the birds and in raising funds for the larger task of providing for the Ducks. The response to the appeal was generous and productive of results. Happily, the severe winter was succeeded by a very favorable breeding-season for all wild birds.

Legislation: But a small amount of legislation affecting birds was enacted, and this was along favorable lines.

The Mount Katahdin game-preserve, established by order of the Commissioner of Inland Fisheries and Game, March 31, 1922, affecting about 90,000 acres of wild forest land, was reestablished by an act of the legislature. A bill to provide an open season on Ring-necked Pheasants in York County was rejected. Several small bird sanctuaries were established by the legislature. An attempt was made by the Audubon Societies to establish a cat license throughout the state, but this met with defeat.

Inspection: The time from April 13 to May 2 was devoted to a cruise along the coast, from Portland to the southeastern boundary of the state, as pilot and assistant to U. S. Game Warden Bertrand E. Smith, visiting the important gunning-places and breeding-grounds of sea-birds. About 200 miles of coast

were covered. Black Ducks were observed at innumerable places preparing to breed. Eider Ducks were seen in rather large numbers at several places, but not migrating. Herring Gulls and Ospreys were congregating and guarding their nests or nesting sites, the former in large numbers. Great Blue Herons were also assembling at their breeding-places.

June 28, with State Game Warden Capt. Herbert L. Spinney, I visited the colony of Great Blue Herons in Booth Bay. Fifty nests were counted, many containing young. The colony was in excellent condition, showing no signs of molestation. A new colony of Common Terns was found breeding on Goose Rock, in the Sassanau River, and Capt. Spinney later noted another colony on Egg Rock, off Popham Beach, where none of the birds has been known to breed for upward of fifty years. Owing to the great expansion of the breeding-grounds of the Herring Gull, the Terns are again much persecuted. Terns succeeded, however, in raising many young in the state this year.

The Katahdin game preserve was visited the last of July, and a number of boreal birds noted in the spruce forests of the region. One of these birds was the Canada Grouse, which has become exterminated in many parts of the state.

General Work: Two new bird clubs have been reported this year, the Wilton Bird Club, Rev. Arthur T. Craig, president, at Wilton, Maine, and a club at South Paris and Norway, with Miss Flora Murch, leader. Governor Percival P. Baxter appointed, this year, the third annual Bird Day, and the observance was general throughout the state. The demand for talks and lectures about birds, by literary and social organizations and the granges, continues to increase, and it is most gratifying to observe the new recruits coming forward to help carry on the story of the mission of the birds.

REPORT OF MARY S. SAGE, FIELD AGENT FOR LONG ISLAND, NEW YORK

Every year there seems to be more interest in the Junior Audubon work here on Long Island. Nearly every day, applications arrive asking for talks to be given in the various schools, at women's clubs, and many other organizations. While the winter was exceedingly severe, and I was not able to get to the school on account of the impassable condition of the roads, when the good weather did come I was busy, and, as Mr. Pearson says, I ought to be triplets in order to go to all the places I am called.

Since the last meeting of the Association, I have spoken 115 times and driven many miles. Some of the schools here on the island have but two rooms, many of them but one, and in a day I will travel more miles than the number of pupils spoken to. But it pays, as you would say, if you could see how I am received, and on a second visit realize how the children have absorbed the talk given previously.

The suet-stick has been a joy, and I have had to refill it, as the boys picked

out all the suet. I let them examine it all they care to, and suet-bags have been in evidence, too. At one school only the remains were on the trees; they had been visited by the birds during the winter and the strings were literally all there was left.

A number of pictures have been received, and this year I will show several slides from the films which are bought, when clear enough to use for slides. This is a great incentive, as it encourages the children to put out food in winter and nesting-boxes and water in the summer. I explain that then is the time the pictures are more easily obtained.

Sometimes several trips are made to one school. I will speak in assembly, and then be asked by the teacher of biology to come with the slides and give a talk to her class. Of course, many of the schools have no stereopticon; then I use the leaflets, and that really makes it more personal, as I walk through the aisles, and the children and I have some wonderful talks. I encourage questions, and I am often in one room all session. The teachers seem to enjoy it, too, and I find a warm welcome in all the schools, especially after the first visit.

I have worn out one car and now have a new 'Birdie,' and if the weather will permit, we shall visit many schools during the fall and winter. Even now I have many appointments, and, as I said at the beginning, every day seems to bring requests for talks.

My work is not confined to the public schools. I have been to a number of private ones and some parochial schools as well. The women's clubs are interested, too, also the Home Bureau, and I gave an entire week for the work mapped out by Miss Watkins, head of the Home Bureau, Riverhead, also some later talks as well. It is all very encouraging, and the interest seems to grow, if requests to speak are any criterion.

REPORT OF FRANCES A. HURD, SCHOOL SECRETARY FOR CONNECTICUT

The desire that bird-study might be taken up more extensively in the rural schools has been gratified in a marked degree during the past year. Many requests have come from supervisors and teachers of the rural sections of the state for bird-talks to be given in their schools, and they have followed up the work after the visit of the school secretary. While a smaller proportion of pupils of the state may have been reached than hitherto, it is felt that the work has been well worth while.

In connection with our State Audubon Society, some special work was done in certain of the rural schools last fall. During four weeks spent in this field, 38 schools were visited under 8 supervisors and talks given to 1,200 pupils. Twelve conferences were held, with a total attendance of 89 teachers and 7 supervisors. A number of Junior Audubon Clubs resulted. Letters were

received from many of the pupils in response to a request made by the school secretary that they should make certain observations and report to her. They asked me many questions in their letters, which showed they were feeding the birds and observing them carefully. It kept one busy for a time answering their queries.

One little girl wrote of finding a bird's nest containing one egg late in September. Thinking it was an abandoned nest, she asked her father if she might take it home. He told her that she might and so branch and nest were taken down. When she reached home her mother told her the nest ought to be put back for she thought the egg was good. The child obeyed and tied the



IN THE FIELD

branch and nest back as well as she could. A few days afterward, on looking at the nest, she found more eggs in it. The eggs were hatched and the brood successfully reared.

The week of November 20 was spent in the Bridgeport schools, the school secretary having been invited by E. E. Cortright, the Superintendent of Schools, to be one of the speakers on the program for Humane Education Week. At this time, 15 schools were visited and 40 talks given to some 10,000 children which resulted in the formation of many Junior Audubon Clubs. A special call this spring from a supervisor in the eastern part of the state resulted in a two days' visit to these schools in company with her. These schools, mostly one- or two-room buildings, are widely scattered, difficult of access, and seldom visited by outsiders. One day our only lunch-place was the general store of the hamlet where we feasted on crackers, cheese, and fruit.

In one of the more remote schools, the teacher was carrying on some interesting bird-study, and the children were making very creditable notebooks.

That of a thirteen-year-old girl showed close observation and intelligent study of birds. In the evening we attended a speaking contest, and the school secretary was given an opportunity to speak of our Audubon work. Adults, as well as the children, were interested in the specimens of birds shown and during the social hour asked many questions about the subject. In one little country school, a teacher was found carrying on bird-study with her pupils, who said that her interest in the subject had been aroused by the bird-talks she had heard me give when she was a pupil in a school I had visited, and in which a Junior Audubon Club had been formed. A number of new towns have taken an active interest in our work and formed Junior Clubs.



JUNIOR AUDUBON MEMBERS PREPARING TO WELCOME THE BIRDS IN SPRING

Mrs. R. E. Upson, of Marion, has awakened a keen interest in the study of nature in her vicinity and is doing a splendid work. It is due to her efforts that the school secretary was able to visit many schools that had never taken up the work before. Mrs. Upson has formed a children's Neighborhood Bird Club whose meetings are held in the open. Special programs are given at these meetings, followed by carefully planned field-work. The Club has adopted a uniform, with an emblem embroidered on the sleeve. Nature-lovers of the vicinity are being enlisted to organize other Clubs for the children of their neighborhood. May this be an inspiration to others.

A new field of activity presented itself when the call came to spend some time at one of the Girl Scout camps this summer, where considerable interest was aroused which it is hoped will lead to greater things.

REPORT OF HERBERT K. JOB, DEPARTMENT OF APPLIED ORNITHOLOGY

The most notable feature of the work this year has been the greatly increased success of our experiment, demonstration, and instruction station at Amston, Conn. This season we have doubled all our previous records in bird-raising. In addition to our numerous colony of song-bird families, we have produced game species and water-fowl worth \$6,200, at existing market prices,



HERBERT K. JOB WITH LIVING HEATH HEN AT MARTHA'S VINEYARD, MASS.

for liberation or breeding stock. To date we have made cash sales of \$5,200, and are holding the rest to increase our stock.

Though the major part of this was for Pheasants, raised and sold for the support of the work, we have also had most encouraging results in the rearing of our beautiful native Wood Duck. These young are hard to rear successfully unless handled just right. After working on the problem for several years, with rather meager results, this year we finally struck the magic formula, after which, with the single exception of one little runt drowned in a shower, we reared to maturity, without a single set-back, every duckling hatched, a beautiful flock of about forty, now blossoming into the full adult plumage.



YOUNG WOOD DUCKS AT AMSTON (CONN.) EXPERIMENTAL GAME FARM
Photograph by Herbert K. Job

In July, a very successful Summer School session was conducted. The students, mostly teachers, were well cared for, instructed, and entertained, and were very expressive of their pleasure and of the good which they had received. Many others were also given informal instruction.

Owing to the results of the summer, a considerable amount of money is available for the improvement of the work. As Amston is at least an hour's drive from Hartford and other cities, and off the popular tourist routes, the work is not being developed along museum or gardening lines, but as a great wild-life sanctuary and game-farm, cooperating with the state as a 'state game preserve,' with our head keeper, Henry A. Bowden, under appointment as a deputy game warden, with authority to make arrests. The lake serves also,

under the Federal Government plan, as one link of a chain of refuges and feeding-grounds for migratory water-fowl. As a center for the development of the various aspects of 'applied ornithology,' our work at Amston is unique, with a special field and purpose.

During the past few years a group of prominent nature-lovers have assured the maintenance of this work. These have organized as the 'Amston Lake Club, in cooperation with the National Association of Audubon Societies.' Through the continued friendly encouragement of the owner of Amston, Charles M. Ams, Esq., of New York City, this organization has now secured from him the lease for a term of years of Amston Lake and a great tract of surrounding wild land. This assures the stability of our work and its increasing usefulness.

In the field of educational work through the 'cinema,' as it is termed abroad, a new reel has been made this season on 'The Vanishing Heath Hen,' another called 'In Wild Bird Haunts,' dealing with the haunts and home-life of common birds, and a third is nearly completed. These will be available through lectures under this Department and other channels of the National Association.

During the year, frequent public lectures have been given, a large correspondence maintained, and various persons and organizations helped in reference to practical matters of increasing and protecting our wild bird-life.

REPORT OF J. M. JOHNSON, SPECIAL AGENT IN THE ROCKY MOUNTAINS NATIONAL PARK

By an agreement between the National Park Service and the National Association of Audubon Societies, I was engaged to do special work for the latter in connection with my service as Park Naturalist in the Rocky Mountains National Park, in the state of Colorado. Only by this arrangement did it seem possible to have such an officer in the park this summer. This cooperation was a very natural one, since the keynote of the work as Park Naturalist was that of conservation and preservation.

The Rocky Mountains National Park is in north-central Colorado, about 40 miles from the city of Denver, and is easily accessible for tourists by means of automobiles. Large numbers of residents of the state and of neighboring states visit the park as campers, especially at week ends. During the season of 1922, the number of park visitors was in excess of 219,000. The elevation of the park is from 7,500 feet to 14,255 feet, the top of Long's Peak. It is nearly rectangular and covers an area of approximately 400 square miles. Its surface is made up of open park-like area at the lower levels, of heavily wooded valleys and mountain slopes, of small open mountain valleys and of flat grassy areas above timber-line. In the mountain valleys are many small, beautiful lakes. No less than 123 species have been recorded, and of these 67 species were seen by the writer during the past summer,

The method of work was as follows: Twelve of the larger hotels were selected and evening lectures were given. In each case, at 9 o'clock A.M., the next day, a field-trip was held to identify the wild life, including birds, mammals, wild flowers, and trees. In all except three lectures (where there was no electricity), colored lantern-slides were used for illustration.

The titles of the lectures and the number of times each was given are stated in the following tabulation:

TITLE OF LECTURE	NUMBER OF TIMES GIVEN
'The Birds of the Park and How to Preserve Them'	12
'Our Four-Footed Friends and How to Treat Them'	13
'The Flowers of the Park and Their Conservation'	4
'Our Friends, the Snakes (camp-fire talk)'	1
'The Face of the Park and How It Was Made (geology)'	1
Total	31

The total attendance at lectures was 2,436.

The average attendance at lectures was 78.5.

The total number of field-trips was 26.

The total attendance at field-trips was 543.

The average attendance at field-trips was 20.8.

The average, both at lectures and at field-trips, was considerably lowered by the small number of guests at the hotels at the beginning of July and at the end of August. At the height of the season, attendance at lectures was often from 100 to 175, according to the capacity of the hotel, and the number on field-trip was from 30 to 40. An important feature of the work was consultation at the headquarters building of the park. Every day a considerable number of campers and hotel guests appeared to have plants, birds, and mammals identified. At all the lectures on birds, and at several on mammals, National Audubon Association leaflets, setting forth its work and its purposes, were given out and a part of the lecture devoted to this subject. Leaflets were distributed also to the visitors at the park headquarters building; in all, several thousand were given out.

The hotel managers cooperated very well and wanted more lectures than there was time in which to give them. On the whole, the response to the work and to the ideals advocated in the lectures was very gratifying.

Your agent was glad to accept an invitation to lecture on 'The Wild Mammals of Colorado' at a Conference on the Conservation of Wild Life held at the University of Colorado, at Boulder, on August 20 to 24, inclusive. Here Audubon Society literature was distributed and its work stressed. Naturalists were present from various parts of the United States.

At the beginning of twenty-eight lectures, a lantern-slide, giving the nature-lover's creed, was thrown on the screen and commented upon, especially the third paragraph. The creed published by the Colorado Mountain Club is as follows:

A GOOD WOODSMAN

Is a fellow you would want to go camping with—again.

That kind of a fellow

Always leaves his camp-site in better condition than he found it. He burns the rubbish, buries the cans, and puts out the fire so that it *stays out*. No forest-fires mark his trail. He uses a camera instead of a gun. All the wild creatures that crawl, fly, or run are his *friends* instead of his prey.

He picks few flowers and never pulls them up by the roots.

He never chops down a tree unless he has a mighty good reason for doing it.

REMEMBER—

You were not the first over the trail. Leave the pleasant places along the way just as pleasant for those who follow you.



REPORTS OF AFFILIATED STATE SOCIETIES
AND OF BIRD CLUBS

REPORTS OF STATE SOCIETIES

California.—The California Society has tried, this year, to discover and provide materials suitable for bird-study among western young people. We presented to a large city high school assembly a lecturer who is brilliantly fitted to hold and interest that critical age, Clinton G. Abbott, in his lecture, 'Making Friends with the Wild.' The high school was chosen because of its class of young nature guides who assist the Nature Supervisor on all-day field trips with school children to the California mountains and beaches. We gave a luncheon and held a conference on educational bird material. A museum director told of exhibits prepared for loaning. Most notable of these are portable habitat groups. Sets of skins have been used by our directors and members in various school, church club, and 'community' programs. Our sets of slides have also seen good service. The Chairmen of the Bird and Wild Life Committees of our women's clubs borrow all our slides and mounted pictures.

At the conference, more than a dozen educators discussed material needed in the West, especially color pictures of common western birds. Exact desires were defined by a nature supervisor, superintendent of agriculture, university nature-study professor, museum director, Audubon president and director, high school teacher, leader of Boy and Girl Scouts, and of Western Rangers. Our committees were appointed and much preliminary work done on a project which, in cooperation with the National Association, we hope will be in evidence this fall. Our annual meeting was a red-letter June party in the garden of our past secretary, Mrs. Harriet Williams Myers. We welcomed on the program our first secretary, W. Scott Way, long absent in Florida, but recently returned to his original battleground. We watched a bird-banding demonstration by Eugene Law of the Cooper Club and were honored in the presence of the famous bird artist, Allan Brooks, thoroughly enjoying his discussion of inland lake-bird life in California.

We would report that Mrs. H. W. Myers' book, 'Western Birds,' is being received favorably by both educators and prospective bird students. The California Fish and Game Commission has sought our aid in its fight to use its own money, collected from fines and licenses. Under the budget system, the state is trying to absorb this income and to appropriate a small amount back to the Commission. It has not yet been decided as to what is the lawful procedure.—(Miss) HELEN S. PRATT, *Secretary*.

Colorado.—We regret to report the death of one of our most noted and active members, Dr. W. W. Arnold, who maintained the famous bird hospital

and administered to hundreds of sick and injured birds every year. The hospital is now cared for by Mrs. Arnold and A. P. Brigham. It still has several occupants, and Mrs. Arnold also keeps a few cages in her home in which are some birds too maimed to be given freedom, among them the Lark Bunting so dearly loved by the doctor. It is a splendid songster and the doctor often entertained shut-in friends with its songs by telephone. Bird-lovers that went to the house were able to note its annual change of plumage. Truly the death of Dr. Arnold caused a great loss to the birds and bird-lovers of this region.

Mr. Augustus P. Brigham has now taken over Dr. Arnold's work and has organized an Arnold Nature Club among children. Our vice-president, Dr. W. H. Bergtold, of Denver, keeps well posted on bird migrations and makes frequent observations. Miss Ada B. Copeland, of Grand Junction, covers the work on the 'western slope,' as we call that side of the mountain range. The narrow-leaved cottonwoods of this locality have been infested with tiny white caterpillars which suspend themselves from web-like threads and dangle onto the inhabitants in a most pestiferous manner. Spraying, torches, smoking, and many other methods were employed by the frantic citizens; these gave only temporary relief. Last week the Brewer's Blackbirds came into the infested territory in large flocks, swooped down upon the trees, and made a general clean up. So effectual was their work that, for several days afterward, the community seemed free of pests.

This excellent work of the birds has impressed people more strongly with their value and the necessity of protecting them than would a dozen lectures. It has given our Society valuable demonstrations that will help on the 'cat *versus* birds' fight. Mr. P. H. Smoll, of the Deaf and Blind Institute of Colorado Springs, has given bird lectures all summer at the Broadmoor Hotel. Mr. Smoll is an enthusiast in bird photography and possesses a most excellent Ballopticon. His voice and manner are pleasing and his talks are very entertaining, all of which helps our good cause along. Nearly all of our members are doing something worth while in the interest of birds and small animals. Most people seem to think that the Audubon Society deals only with birds. I wish it might be more generally known that we are broader in our humanity and also include the wild animals.—(Mrs.) IRAH T. ELLIOTT, *Secretary-Treasurer*.

Connecticut.—On January 28, 1923, our State Audubon Society passed its quarter-century mark. An account of the celebration of this event at Fairfield, in June, appeared in a recent issue of BIRD-LORE. That delightful Field Day will linger long in the memory of all who were present. The Executive Committee has held its usual bimonthly meetings throughout the past year.

Much time and thought have been spent in the planning and construction

of habitat groups of birds in portable cases, to be used for instruction in bird-protection throughout the state. Four of these cases contain song-birds and four are arranged as sources of information to sportsmen, as to what birds may or may not be shot during the open season. The groups of song-birds—winter birds, birds of apple-blossom time, and two cases of summer residents—will be used in the instruction of school children. The birds are all clearly labeled and pleasingly placed, with seasonable surroundings and landscape backgrounds, making very attractive and instructive sources of information for old and young. These cases are to be placed in various parts of the state, and talks on birds will be given in those places by a member of the Connecticut Audubon Society. This will constitute our chief line of work for the ensuing year.

During the past year, Miss Frances Hurd has continued her work with the school children in many parts of the state. Warden Novak reports from Birdcraft Sanctuary for the year ending June 1, 1923, 142 species of birds seen; 130 nests found; 29 species nesting; number of visitors over 7,000, including 41 classes of school children and 7 troops of Boy and Girl Scouts. The interest continues unabated.

And so, after a quarter century of work completed, we continue our labor of love for the birds with cheerful courage, still led by our beloved president, Mabel Osgood Wright, a leader untiring, resourceful, and progressive.—(Miss) CHARLOTTE A. LACEY, *Secretary*.

District of Columbia.—My report for this year must begin with the sad statement of the death of Judge Job Barnard, our beloved and, for many years, most active and interested president. Since his death, Dr. T. S. Palmer has been filling the position most acceptably to our Society.

Our twenty-sixth annual meeting was held at the new National Museum, with Arthur C. Bent, of Taunton, Mass., as our interesting speaker. A second delightful lecture was given in March by Bengt Berg, the Finley of Sweden. We have had our regular six field meetings, which were not quite so well attended as usual, owing largely to the weather. One of our members, who is seventy-four years young, went on her fifty-eighth consecutive bird-walk, making a perfect attendance for nine or ten years.

This year we have been stressing the work with the children and teachers. Four lectures were given at the museum, the subjects being 'Nests,' by Dr. Paul Bartsch; 'Group Relationship,' by Dr. H. C. Oberholser; 'Value of Birds to Agriculture,' by W. L. McAtee (read by W. H. Cheesman), and 'Birds' Voices,' by Dr. Oberholser. Mrs. Clarence Aspinwall has given seventeen talks to the children in three of our schools and has met with a most enthusiastic response. In our regular bird-study classes we had a total enrollment of 174; among these were Girl Scouts and 15 Boy Scouts. The average attendance of children was 60. At the end of the course, 50 of our more common

birds were placed on the tables and 27 of the children and young people made the test, while 24 made the test of 25 birds. We feel as though we have made some real progress this year and enter on our new year with fresh courage.— (Miss) HELEN P. CHILDS, *Secretary*.

Florida.—Our twenty-third annual meeting was held in March, 1923, at Clearwater, by invitation of the Pinellas County Audubon Society, Rutherford F. Hayes, president; the Woman's Club, Mrs. Susan Gage, president; and the local Chamber of Commerce.

Mr. T. Gilbert Pearson, president of the National Association of Audubon Societies, New York City, was present throughout the three days' convention, compelling the admiration of all, not only by his illustrated lecture at the Capitol Theatre the opening morning, but at the business meetings and the luncheons served at Clearwater under the capable chairman of the Woman's Club, Mrs. Charles M. Hemphill, and at Ozona, under Dr. Grace Whitford, president of the Pinellas County Federation. Mr. Pearson suggested, when the state president brought up the necessity of raising funds for a paid secretary, that the sum of \$5,000 be underwritten for that purpose, promising to obtain the first \$250. This plan is being worked out and will be presented for completion at the next annual meeting in March, 1924. It should be mentioned here that, in honor to the Society and Mr. Pearson, the schools of Clearwater were closed that the pupils might attend his bird lecture, and they marched into the galleries and front seats in long files which stretched from school-house to theatre.

Dr. W. F. Blackman, Lake Monroe, past president, responded to the various greetings for the state, and was the power behind the throne, being assisted by Mrs. Blackman. Among other speakers of note were George Inness Hartley, author of the book 'The Importance of Bird Life;' Mr. A. A. Coult, of the Florida Development Board; Mrs. Julia Hanson, the past chairman of the Bird Protection Committee; Mrs. W. S. Jennings, vice-president of the General Federation of Women's Clubs; Miss Elizabeth Skinner, president of the Florida Federation of Women's Clubs; Dr. Mary Jewett, of Florence Villa; Miss Esther Armstrong, Mt. Dora Audubon Society; Dr. Roy Hanna, and Miss Isabel Goodhue, field agent of the Florida Audubon Society.

A new branch Audubon Society at Tarpon Springs, Mrs. Ada Fernald, president, was reported, also some thirty new municipal bird sanctuaries. Pinellas County has the first and only chain of bird sanctuaries in the United States that entirely girdle the county. Volusia County has the proud distinction of being made the first bird sanctuary by state law, this local measure having passed the last legislature. It may not be out of place to report that Hillsboro County, by local law passed at the last legislative session, has now a closed season for four years on deer, Turkey and squirrels.

The legislative action necessary for preparation of a well-balanced game

bill, to be introduced at the April-May legislature at Tallahassee, was one of the outstanding features of the Convention, and was presented by Mrs. Tippetts, president. It is humiliating to add that this bill died on the calendar of the House, where it was assigned as a special order on third reading. It had passed the Senate early in the session, with only five dissenting votes, and the Governor stood ready to sign it. At the joint assembling of the two houses at the opening of Legislature, Governor Hardee had recommended the passage of a measure to preserve the wild life of the state. The trouble was a delay in action in the House and conflicting interests, as well as the calibre of the candidates lobbying for the office of Game Commissioner, before it was created.

When the game bill was in jeopardy, the president of the Florida Audubon Society, who had been on hand constantly from a week before the opening, looked around for minor bills to bolster up and push for near-substitution. Early in the session the Committee on Education had reported unfavorably a bill to make bird- and animal-study compulsory in the public schools. It passed the House but lingered on the calendar of the Senate, mixed with ticks, gasoline, roads, and other bills, till the second day of the last week, when Senator Hodges, of Leon, was instrumental in getting it through, and the Governor was glad to sign it. Now the supervising authorities are busy making up the necessary syllabus, as the study is *compulsory*. The bill is based on a similar one passed in New York in 1917, which has proven very satisfactory. Miss Maud Schwalmeyer, head of the Teacher-Practice School, at Tallahassee, had a vision and some time ago began to fit her pupils for this work and has turned out many who will be intelligent in handling this new study. No better bill could have been passed for educational purposes along the lines of wild life conservation.—(Mrs.) KATHERINE B. TIPPETTS, *President*.

Illinois.—The Society's activities have not been of a very spectacular character, but a steady demand has come from many sources for literature and information regarding general bird-conservation. Boy Scout leaders have been particularly active in bird-work, and the demand for leaflets and field-observation notebooks has been very gratifying. Only one lecture was given during the year, but the interest in birds was proven by the large attendance. Mr. Finley was at his best, and the first bird-lecture given by the Audubon Society in the new James Simpson Hall in the Field Museum was a great success.

A display of bird literature and pictures in a bank window, at one of the most prominent corners in Chicago's financial district, was an interesting bit of publicity. The window attracted much attention and the time of the exhibit was lengthened to three weeks on account of the unusual number of people who inquired at the bank about the Audubon Society and its work. The problem of bird-protection is peculiarly difficult in the vicinity of Chicago.

It seems quite impossible to prevent the shooting of protected birds, either in the woodlands or along the shore-line of Lake Michigan. Trapping of birds and their sale still continues, the vendors claiming that the Cardinals offered for sale are imported from Mexico.

Federal licenses are obtained for scientific collecting, and then used illegally. The number of game wardens is utterly inadequate for the needs in northern Illinois. The thirteenth number of the Audubon Bulletin was issued and the fourteenth is on the way. Nothing new was accomplished with the State Legislature as matters of politics effectually crowded out most of the fine conservation bills that were proposed.

The spring bird migration was at least five days behind schedule, and then went through with a rush. The fall migration was at its height on September 2. The Illinois check-list is being called for from all sections of the United States and Canada, which proves the need of similar lists from other states.

Bird-banding has proven its right to a place in the study of birds and their habits, and is checking up much that was only guessed at heretofore. The Chicago region is remarkably adapted to this fascinating work, and a director of the Illinois Audubon Society is one of the most efficient workers in this new and important field.—ORFHEUS M. SCHANTZ, *President*.

Indiana.—Our twenty-fifth annual meeting was held at Greensburg, Ind., on May 3 and 4, 1923. The arrangements were efficiently handled by Mrs. J. F. Goddard, chairman of the local committee. Among those present were its first president, Judge Robert W. McBride and its first secretary, Dr. Amos W. Butler. A part of its program consisted of an illustrated lecture by Dr. Butler on 'Birds About Our Homes.' Mr. Alden H. Hadley, president, gave several informal talks. Early morning and full afternoon bird-hikes were taken by the members, and bird-talks were given in the different schools in the city. The Society went on record at this meeting as favoring and pledging itself to put forth its efforts to have 500 Martin boxes in each county in Indiana, and to further in every possible way the planting of at least 2,000 young trees in each county in Indiana within a year.

At Christmas season, last year, an effort was made to get a Christmas bird census from every county in the state. The reports came from only one-fourth of them, but the prospects for a more complete census this season are good. The Society is growing in membership. The most notable group accession was that from the town of Mooresville, having a population of about 1,200, wherein the total membership is now 51. The president and secretary have, during the year, given lectures and informal talks without charge in a number of cities and towns near Indianapolis. About a dozen members of the Indiana Audubon Society are assisting the Biological Survey at Washington in its bird-banding work.

During the year there has been bequeathed to the Society by one of its

members, Mrs. Carrie Augusta Vandevere Massey, of Vermilion County, Indiana, the sum of \$1,000 to be used as the Society desires in the furtherance of this work. During the summer an illustrated bulletin was published for distribution to members and other bird organizations.—SAMUEL E. PERKINS III, *Secretary*.

Kansas.—The 'Audubon Society of Kansas' was reorganized on May 5, 1923, during a special meeting held in Wichita. Enthusiastic representatives from many Kansas towns attended this meeting. Prof. H. H. Nininger, of McPherson College, who was the principal speaker on this occasion, gave an interesting talk on the economic side of bird-life.

No meetings were held during the summer months, but work for increasing membership in the Society and the organizing of Junior Audubon Clubs was carried on. Our Society has been promised the cooperation of both public and private schools in our endeavor to interest children in bird-study. Special Audubon buttons have already been designed and made for our Junior members. The advertising department of Church & Dwight Company, New York City, manufacturers of baking soda, has kindly agreed to furnish their set of thirty designs 'Useful Birds of America' at 6 cents for each member. A supply of Audubon Educational Leaflets has also been purchased for the members of our Junior Clubs.

The Society is planning the erection of bird fountains in all the larger towns of Kansas. Mr. R. E. Booth, our president, has ordered drawings to be made for the Wichita bird fountain, which is to be erected in Riverside Park. Mrs. Bessie P. Reed, of the University of Kansas, is scheduled for an illustrated lecture in September. Hal G. Evarts, a Kansas author and bird-lover, has been asked to give a special talk before the Society, and several other noted speakers are to be engaged for lectures during the winter season.—(Miss) MADELEINE AARON, *Secretary*.

Massachusetts.—During the year ending September, 1923, the Massachusetts Audubon Society welcomed to its membership list 870 news-sustaining members and 46 life members. This makes a total sustaining membership of over 5,000 and 716 life members. These figures show that the interest in our work is well sustained throughout the state. The activities of the Society along its many regular lines have been continued. Special attention has been paid to placing our valuable colored charts of native birds in schools and libraries throughout the state, and the demand from like institutions throughout the country has steadily increased.

'The Bulletin,' published regularly as a 12- or 15-page pamphlet, has carried news of the work and interesting items concerning birds and nature to all members. It finds increasing demand among Audubon members, bird students, and public libraries outside the state. It carries, always, the

message of universal bird-protection, individually applied. The Society's annual calendar, beautifully illustrated with pictures of colored birds, used through the courtesy of the National Association of Audubon Societies, has been as popular as usual. Like the charts, these calendars find friends throughout the country.

Free traveling lectures, free exhibits, our moving-picture film, and our literature, advice, and assistance in all matters pertaining to bird-study and bird-protection, have circulated continually throughout our state and have occasionally carried the good work far beyond our borders. The important sanctuary demonstration work at the Sharon (Massachusetts) Moose Hill Bird Sanctuary has increased. Superintendent Harry George Higbee reports 4,500 visitors and 122 species of birds seen on the Sanctuary grounds. Through the influence of this Sanctuary, officers of the Society have had frequent calls to advise and assist in the establishment of private sanctuaries throughout the state, and several important developments of the idea are now under way. We believe in the great value of such work to the birds and the bird-protection cause.

We rejoice especially in the sturdy growth of our influence throughout the state. The Society receives, with increasing frequency, inquiries for information, and often for advice or assistance in matters of bird-study or bird-protection, from individuals or societies in other, often far-distant, states. It is always glad to receive these and to respond to the extent of its ability.

—WINTHROP PACKARD, *Secretary*.

Michigan.—Our Society rejoices over the constructive work we have been able to accomplish during the past year. Our membership has increased 250 per cent, due chiefly to the work of our efficient secretary, Miss Geneva Smithe. Perhaps the most satisfactory activity of the Society, in the opinion of the members, is the publication and distribution of our 'Audubon Quarterly News Letter,' which goes out regularly, containing important data concerning the work of the Society as well as general information about the protection of birds. Our Legislative Committee undertook to get two pieces of legislation through last winter. They gave up trying to get cats licensed when they learned that the farmers were absolutely opposed to it. Fortunately, the agriculturists were heartily in favor of getting the Bob-white permanently removed from the game-list and were so energetic in pushing such a measure that it was passed and our 'Bob' is permanently placed on the song-bird list.

We are constantly receiving valuable data from the questionnaires sent out by the secretary to all new members. For instance, we are finding persons who take and donate photographs, collect data from personal observation, secure and arrange material for local exhibits; others who will regularly contribute appropriate and seasonal articles for their local newspapers; and we are locating good talkers on birds, who will go short distances to speak. Eventually we hope to establish such a speaker's bureau that we shall be able

on request to name a speaker within a reasonable distance from most any part of the state. This will eliminate paying traveling expenses and get a great many persons actively engaged in spreading the gospel of bird-protection. We started a clipping bureau but found that the Extension Department of the University of Michigan would take over our material on birds and classify and file it. We were glad to avail ourselves of this offer since it saves us the laborious task of caring for the material and makes it available, not only for us, but for all others who may wish to use it.

We are expecting to get much publicity through a permanent exhibit to be sent out on application to any community that asks for it. The exhibit will consist of photographs, bulletins, charts, bird-houses, feeding-devices, cat-guards, lists of bird-books, bird-songs, bird-records, etc. At our annual meeting, held in Ann Arbor last May at the same time as the May Music Festival, we had the double pleasure of listening to an excellent program on birds and also hearing some of the best musical artists of the country. At this meeting we re-elected all of last year's officers, elected another vice-president and another member of the Executive Committee, and voted to create an advisory board consisting of ten representative men and women of the state. It was also voted to make the president an honorary life member of the Society in recognition of her many years of faithful service to the cause.

Since the director of the State Department of Agriculture is a member of our Advisory Board, and deeply interested in birds, we are kept closely in touch with the agricultural interests of the state. We are also well linked up with the Conservation Department since its secretary is a member of our Executive Committee.—(Mrs.) EDITH C. MUNGER, *President*.

Minnesota.—We have to report an unusually lively year among the many branch societies in the different counties of the state; also inquiries and correspondence from Wisconsin and North Dakota near by. I think the interest in birds, which has been rather slack for the past two years, is reviving. Owing to the lack of funds (which have been almost entirely advanced by the president), not so much work has been done as might have been possible if money was plenty with us. If we had a larger fund to expend upon bird literature for distribution, we could vastly increase our membership, and educate and interest many more people in birds.

The spring opened very late. As many migrants arrived two and three weeks late, more than the usual number of birds stopped here to nest on that account, and the reports show a very unusual number of nests. Ducks and Geese were late but very numerous in the large lakes. About May 7, we were visited by an unusual number of Warblers, which increased largely the week following. About May 20 there was the usual flight of Vireos, Grosbeaks, Wrens, and Orioles. The April flight was late, with the usual number of Robins and Blackbirds, and an unusual number of Sandpipers in the lakes adjoining

our city plat also many Wilson's Snipe that stayed around quite beyond the usual time. There have been very few Maryland Yellow-throats reported this season.

There never were so many Robins in this locality as this year, also various Sparrows. I attribute it to the more stringent enforcement of the bird-protection laws. The season has been a good one for the feathered things which are such a comfort to us all. How dull and lonely our gardens, woods, and fields would be without our bird friends. Many Crows were killed this year. Opinions are about evenly divided among our bird observers as to whether the English Sparrow does more harm than good. They have many staunch friends who declare that they destroy large numbers of harmful insects, and, as is well known, their young are entirely fed upon insects.—JOHN W. TAYLOR, *President*.

Missouri.—The Society has circulated printed copies of its constitution and articles of incorporation for the purpose of making known its objects and of securing new members. The secretary's correspondence has been concerned, to a larger extent than heretofore, with requests coming from different parts of the state for advice on establishing bird clubs, and for endorsement of applications for permits to collect birds for study. There have been informal conferences on the question of spring shooting of water-fowl. The Society has kept itself informed of state legislation affecting bird-protection and is in coöperation with the State Game and Fish Commission in enforcing the laws for the protection of birds.

The officers have given much time and have taken an active part in the recent legislation on conservation of wild life in Missouri, which has dealt especially with the questions of reforestation, establishing state parks, and the repeal of the bounty on Hawks and Owls. A public lecture on the habits of native birds, illustrated by colored slides, was delivered before a St. Louis audience, November last, by A. A. Allen, of Cornell University, who was the guest of the Audubon Society and St. Louis Bird Club.—R. J. TERRY, *Secretary-Treasurer*.

New Hampshire.—The past year has been one of normal prosperity for our Society. We have furnished information on a variety of subjects pertaining to our especial field, a sort of clearing-house for inquiries being always an essential feature important to, and a very valid reason for, the maintenance of such an organization.

We have continued the publication of our 'Quarterly Bulletin' and thus have been enabled to keep in touch with the various matters relating to our cause in our local field. As an aid to the dissemination of knowledge regarding the value of our bird-life among the people of our state in the smaller towns and remoter districts, we have established a traveling library. This consists of

the best standard works available on descriptive and economic ornithology. With the cooperation of our Public Library Commission, the books are sent to readers who would not otherwise have access to such reading, reaching a rural population most desirable to interest in these matters.

The Junior Clubs in the schools have increased in number and members, the enumeration for the past year showing a healthy growth over that of the year previous. We desire to still further help an advance in this most important phase of the work as well as in other fields of endeavor.—GEORGE C. ATWELL, *Secretary*.

New Jersey.—We have carried on our usual activities during the past year, with no special outstanding feature. There has been added to our enrollment this year, 1 patron, 1 life member, 30 sustaining members, and 105 members. Just after the close of the fiscal year another life member and 25 members were added.

In the legislative field, an effort was made to re-enact the Bobolink Protection Law passed through the effort of the Society in 1921, and repealed through the political influence of Senator Allen, of Salem County, in 1922. This year's effort on behalf of the Bobolink in New Jersey was pushed with every resource at the Society's command and would have succeeded, the bill having passed the Assembly and having more than the necessary number of votes pledged in the Senate, but once more Senator Allen's astonishing influence was manifested in having the bill irregularly referred to the Committee on Education, of which he was chairman, where he held it in defiance of all expression of public sentiment in its behalf, until adjournment.

The newspaper publicity work of the Society steadily develops in a most gratifying manner. This includes a most satisfactory general use by the press of the state, New York City, and Philadelphia of the regular service articles sent out, as well as many individual articles, including a regular weekly column in the *Ridgewood News*, with special heading and cut.

Ten illustrated lectures were given by the Secretary, four in Newark, two in Hackensack, and one each in Woodcliff Lake, Wyoming, Wyckoff, and Florham Park.

The thirteenth annual meeting was held in Newark, October 2, 1923. The business sessions of the Society and the Board of Trustees were held in the Ward Parlors of the Young Men's Christian Association Building. In the afternoon, an amendment was adopted, changing the date of the annual meeting from the second to the first Tuesday in October, and the incumbent officers and trustees were re-elected. The public session was held in the evening in the auditorium of the State Normal School, when Dr. G. Clyde Fisher, of the American Museum of Natural History, New York City, gave a most entertaining address on 'Birds and Wild Life about Our Homes,' profusely illustrated with lantern slides and motion pictures of such wild life.

The past experience of the Society has been a succession of gratification and disappointment in the matter of successful achievement. Having had a recent period of the latter, and with many indications pointing to a more general revival of active interest, we confidently anticipate that the present year will usher in a period of successful achievement.—BEECHER S. BOWDISH, *Secretary*.

North Dakota.—The work of the North Dakota Society has been a continuation of the program of the preceding year. The secretary prepared a series of articles, paying particular attention to time of arrival and habits of the common birds. Through the news service of the Agricultural College, these were sent out weekly, from the last of March until the first of June, to all of the (eleven) daily papers of the state, and were used by many of the weekly papers also. This series received a large amount of attention. It placed us in touch with other bird students and brought letters of inquiry from many people. In some cases, the local directors re-edited the articles or added to them. A great deal of the value of these articles and the interest which they aroused was due to the coöperation of some fifteen local directors in sending frequent migration reports from their respective localities. These were sent upon cards furnished by the secretary and will be filed for future reference.—O. A. STEVENS, *Secretary*.

Ohio.—The year 1922-23 has been marked by a complete change of procedure. Hitherto we had all afternoon meetings, but during the past year we had fewer and all evening meetings. There was, consequently, a larger attendance than in previous gatherings, and the Society therefore feels assured that the change was a wise one. Financially, we may reckon the year well spent for we spent more money than ever before, yet closed the year with a greater balance to our credit.

The lecturers for the year were Prof. William G. Cramer, our president, who gave an address illustrated with lantern slides, on 'Our Winter Birds'; Dr. Peaslee, who spoke on 'Camping in the North Woods' and displayed beautiful photographs taken by him and made into very attractive colored slides; F. B. Guile, of New Salem, Ohio, who addressed a large assembly at Hotel Gibson and entertained them by whistling bird calls. Previous to the address to the adults, he spoke before larger gatherings of children in eighty city schools. Last on the list was Norman McClintock, of Pittsburgh, whose interesting motion pictures of wild life made possible a closer and more intimate knowledge of birds' habits.

There have been field meetings and bird-talks wherever possible, so our program has been conceded to have been highly successful. We especially wish to thank Mr. and Mrs. Sumner Cross and Mr. and Mrs. Cramer for the earnestness and ability with which they took charge of the lecture slides,

thus giving to the rest of us and to our friends a great treat.—KATHERINE RATTERMAN, *Secretary*.

Oregon.—Our work during the past year has been of a routine kind: bird-talks to societies when called upon and in schools in connection with the Junior Audubon work, which is progressing quietly and steadily. I suppose the impression most usefully resulting from our activities is a growing friendly public opinion regarding conservation of the wild things, whether birds or flowers, animals or trees.

Our wild-flower exhibits in early spring, shown in connection with the exquisitely beautiful and sensitive wild-flower water-colors painted by Mrs. Sweetser of the Oregon University, are much appreciated by many people. The Saturday evening talks from October to May promise to be of a high order this season, and of a wide range—from Indians of the old Oregon country, to geology, fish, trees, wild flowers, and birds. We think an interest in one outdoor subject leads to an interest in all and from these interests we get our conservationists.—(Miss) EMMA J. WELTY, *Corresponding Secretary*.

Rhode Island.—During the past year we have circulated our traveling library and bird collections and published several short bird notices, 'Birdograms.' Some members have been banding and have induced others to band. After legal entanglements are adjusted, the Society is likely to receive a nice tract of land, a good cottage, and income to run it as a sanctuary. The secretary presented two papers to the American Ornithologist's Union's Congress, based upon his nesting bird-surveys and bird-banding experiments with traps.—HENRY E. CHILDS, *Secretary*.

Utah.—We are pleased to report a steady growth, both in membership and achievement. During the year, Hon. D. H. Madeen, State Game Commissioner, joined the Audubon forces, and his best efforts are directed to the conservation of all Utah's wild life, by the enactment of more stringent laws and their rigid enforcement. At least 3,500 square miles are now dedicated as wild-life sanctuaries and embrace the Cache Valley, the Wasatch, Mount Ogden, Big Cottonwood, Strawberry Valley, Mt. Timpanogas, Fish Lake, Dixie, Heaston, and Parowan State Game Preserves, with supervision over territory adjacent to Zion and Bryce Cañons.

Mrs. A. O. Treganza has given five illustrated talks with Audubon slides, supplemented with her own photographs of an intimate study of the Long-billed Curlew; also many talks on 'Nesting Ways and Habits of Utah Birds.' Prof. J. H. Paul has conducted weekly field trips during the nesting season and responded to many appeals for talks on bird-life. Mr. A. O. Treganza gave advanced bird-study at the Boy Scout 'Pow Wow,' a large proportion of the examinations for merit badge, also many talks during the year.

Regular meetings of the Society were held monthly at members' homes. One open meeting, to which the interested public was invited, was held at Civic Center. Interesting talks were given by Dr. D. Moore Lindsay, Prof. L. A. Giddings, John Sugden, J. A. Mullen, and A. D. Boyle. Utah is slowly awakening to her wonderful possibilities, and public sentiment is growing in favor of greater protection and conservation of her wealth of natural resources.—MRS. A. O. TREGANZA, *Secretary*.

Audubon Club of Norristown (Pa.).—Our meetings have been held quarterly in the Regar Museum. Interest in bird-life and its protection has been stimulated through lectures and wonderful motion pictures at each meeting. Capacity audiences have been the rule and have greatly enjoyed hearing the different lecturers, whose subjects have been as follows. 'Birds of the Gulf Coast of Florida,' 'Natural History of Nicaragua,' 'Bird-life, East and West.' A bird-chart has been given to the Society by one of its members, and on this a complete record of birds seen in this locality has been kept, giving the time of their migration and other interesting data. The Club has gone on record as desiring to have the Quail placed on the song-bird list and thus, we believe, insure its greater protection. Membership is increasing and the Audubon Club hopes to continue to be of service to the community.—(Miss) ISABELLA WALKER, *Secretary*.

Audubon Committee of the Saginaw (Mich.) Branch of the American Association of University Women.—We have distributed, during the past year, many suet-cages for winter feeding. Some were sent to the rural schools. A child in the school at Chesaning wrote that he had been feeding from the cage nineteen Robins, a Song Sparrow, five Blue Jays, and many English Sparrows. The Committee sold bird-houses in the spring and it sent for and distributed Government pamphlets on 'Bird-Houses and How to Build Them,' and 'The English Sparrow as a Pest.' During the heavy snowstorm of May 9, telephoning was done in an effort to have the birds fed.—(Miss) MAY TURNER, *Chairman*.

Bangor (Maine) Bird Conservation Club.—The past year we have carried on all our usual work and engaged in some new activities, namely, our efforts, in coöperation with the other bird clubs of Maine, to get through the Legislature a bill for licensing cats. The bill met with great opposition and did not pass. We find that the farmers in general have little realization of the beneficial work of the birds.

The crowning work of the year has been the completion of the memorial bird fountain which the Club has placed in one of the city parks, a place much frequented by birds. The design of the fountain is unique and dignified in its simple beauty and was made after an original design furnished by Charles E. Tefft, an eminent New York sculptor, formerly of Bangor. He visited Sum-

mit Park and made the design especially adapted to the surroundings. The fountain is cut from a great block of New Hampshire granite, 5 feet, 9 inches square. The large, shallow, circular basin, in which there is to be a continuous flow of water, is hollowed into the square. A conventionalized oak leaf extends from the basin to each of the corners. Around the four sides of the plinth is the inscription cut in large letters.

"Erected in 1922 by the Bird Conservation Club in Memory of its Founder, Florence Bragg Buzzell."

Around the base is a hedge of Japanese barberry, and, beyond that, a red brick walk, set herring-bone, surrounds the square. The color scheme is



MEMORIAL BIRD-FOUNTAIN, ERECTED BY THE BANGOR (MAINE) BIRD CONSERVATION CLUB

notable and the whole picture, with the green turf sloping away and the background of trees, is very artistic. The caretaker in the park reports that the birds were there waiting for the water to be turned on and immediately took possession. They have bathed there every day since August 3, when the basin was first filled. During the cold months it is to be covered for protection, and the Club will make it a feeding-station for the winter birds, thus serving a double purpose. In the years to come this beautiful and substantial work will continue to minister to the needs of the birds.—ALICE B. BROWN, *Secretary*.

Bird Club of Long Island.—We held three meetings during the last year, with increasing attendance at each one. Last July the Club met at the

residence of George Dupont Pratt, in Glen Cove, and Mr. Pratt himself showed interesting pictures of wild life. In October, the Club met at Walter Jennings' home, in Cold Spring Harbor, when T. Gilbert Pearson, president of the National Association of Audubon Societies, gave an account of his recent visit to several of the countries of Europe for the purpose of furthering the organization of an international committee on the protection of birds—an organization very much needed in order that the migratory birds may be protected in passing from one country to another. His address was illustrated with colored slides from photographs he had taken in Europe. At the third meeting, which took place in June, at the residence of Mrs. Robert Bacon, in Westbury, Mr. Edward Avis gave a most finished musical lecture on bird-notes. Twenty-four villages were represented and about one hundred and fifty members were present.

We have added about eighty members to our membership. The past year has shown the increasing value of the work the Bird Club has undertaken, and I wish it were possible to publish the many requests that come for the services of Mrs. Mary S. Sage and the many letters of appreciation which are received after she has given one of her talks. Letters and compositions from school children are frequently sent to me, as are also snapshots of wild birds taken by the children, for which we give a small prize for using the film to make a slide whenever possible.

The interest that is developing among the younger members of the Club is most gratifying. A few days ago, one of the boys living near Syosset telephoned the president to say that some fields of hay were being cut before the birds had flown from their nests and wouldn't the Bird Club use its influence to delay the mowing. It was too late to do this, but it was suggested that as many boys as could be quickly collected should get permission to go into the fields and move the nests to the hedge-rows, hoping that the parent birds would follow and stay with their young. This was done and in the evening the welcome news came over the telephone that fifteen little families of Quails, Blackbirds, and Bobolinks had been saved from destruction.—(Mrs.) ETHEL ROOSEVELT DERBY, *Secretary*.

Bird Lovers' Club of Brooklyn (N. Y.).—The Club met for the 123d time on June 12, 1923, being the last meeting for the season 1922-1923. Meetings are held regularly at the Children's Museum, from October to June, on the second Tuesday of each month. During the past year, under the leadership of Miss M. S. Draper, president, the attendance at meetings has been very good and the teamwork among members has served to make the meetings interesting. Several field-trips have been taken.

Some of the special talks given by various members at meetings were: 'Migration,' 'Evolution of the Bird,' 'Winter Birds' and 'Water-Birds.' At other meetings general subjects were discussed. The subject for one of these

evenings was 'Bird-Protection,' under which reports were made about the Migratory Bird Treaty, feeding of birds, and game laws of the state of New York; also, articles were read about the extinct Great Auk, Labrador Duck, Eskimo Curlew, Passenger Pigeon, etc. On another such evening 'Bird Reservations and Sanctuaries' were treated in a similar manner, as was also the topic 'Bird-Banding,' taken up a third evening. A special feature at an early meeting of the season was an exhibition of the Hooper memorial habitat groups. In each of these cases was displayed a certain bird in a natural pose and showing its usual habitat by means of an attractively painted background, as well as reproductions of vegetable life, insects, and nests characteristic of the respective species. These cases are for exhibition use in the public schools.

The meeting in April was the most noteworthy of the year. On that evening the Club was given a most interesting talk by George P. Englehardt, Curator of the Natural Science Department of the Brooklyn Museum, whose subject was 'Birds as Related to Insects.' The evening was also the occasion of a farewell to Dr. and Mrs. E. W. Vietor, charter members of the Club, who were about to leave Brooklyn to live at Orford, N. H. They have been most earnest workers in the Club and will be missed greatly. However, the Club is still fortunate in counting them active members and anticipates receiving from them every month a letter reporting bird observations in the vicinity of their new home.—(Miss) ELISE TIPLIN, *Secretary*.

Brookline (Mass.) Bird Club.—The past season has been a successful one with us in many respects. The advance in the annual dues from 50 cents to \$1, shortly after the inauguration of the new officers, put our treasury on a more substantial basis, while the circulation through the mails of invitations to join the Club has succeeded in enrolling more than 200 new members, so that we now have a membership of well over 600.

Many of our members attended the monthly lectures given by well-known ornithologists: Dr. Alfred O. Gross, of Bowdoin College, who told of banding Black-crowned Night Herons at Barnstable, Mass., of birds breeding on the Duck Islands off the Maine coast, and also of his experience with some Night-hawks; Glover M. Allen, who spoke on the West Indies, A. C. Bent, who described the wild life of the Arizona deserts; and S. Prentiss Baldwin, who told of his bird-banding experiments in Thomasville, Ga., and Cleveland, Ohio. All of these talks were finely illustrated and were given in the hall of the Public Library.

As for field activities, the Club has continued its program of Saturday and holiday walks and also its early morning walks during the height of the spring migration. During May and June, two or three walks are planned for a day, some more extensive than others. On May 26 and 27, about thirty members participated in a canoe trip down the Ipswich River, observed 83 species, and camped out over night. The ladies, through the kindness of the Essex County

Ornithological Club, had the use of their cabin. Over 150 members enjoyed the Field Day on May 19 at the home of the president, Laurence B. Fletcher, at Cohasset, Mass., where a buffet lunch was served to everyone and opportunity was given to see banding-stations in operation, not only at the president's house, but also at several extensive stations in the vicinity. Many individuals in the Club have taken great interest in banding and are maintaining banding- and feeding-stations throughout the year.

During the coming season, in addition to the lectures of general bird interest, the Club hopes to have some prominent ornithologist deliver a series of popular talks so that those who really wish to learn about birds may start at the beginning, learn the first few simple facts, and at the end of the course have a well-rounded knowledge of birds and bird-life. As one of our aims has always been "the gradual establishment of a model bird sanctuary," the Society hopes in the near future to acquire some property suitable for this purpose. The officers are now shaping plans for 1924 and expect that year to be equally successful, if not more so, than 1923.—CLINTON V. MACCOY, *Secretary*.

Cayuga (N. Y.) Bird Club.—The past year has been one of unusual opportunity for the Bird Club. Mr. L. A. Fuertes, during the spring, gave a series of seven most interesting and instructive lectures on 'The Coloration of Birds.' These lectures were offered by the University but were open to the public, and great appreciation was shown, not only by the University but also by the Bird Club and the public at large. Another delightful feature of the year was a lecture by H. K. Job, of the National Association, entitled 'Feathered Down-Easters.' This was illustrated by five reels of unusually fine motion pictures, including intimate portrayal of the home life of some of our Gulls and Terns. Later in the spring Herbert Friedman gave a talk on 'The Cowbird as a Parasite,' illustrated with colored slides. He showed, also, Edgar Chance's remarkable reel of motion pictures entitled 'The Cuckoo's Secret,' which showed the European Cuckoo invading the Meadow Pipit's nest to lay its eggs, and other interesting things about this parasitic bird.

During April and May the Bird Club, following its custom of many years conducted field-trips every Saturday morning. An average of about one hundred persons attended each week, and through the kind services of several older members, who acted as leaders, we were able to divide into small groups so as to make the trips as helpful as possible to all. Of course, many feeding-stations for birds are kept throughout the year, some in the Renwick Sanctuary, and others about town, at private homes. Perhaps the most interesting patrons, aside from the usual winter birds, were numerous Purple Finches and Pine Siskins which, as a rule, are not common about Ithaca, but which this year gave us the pleasure of their presence. One pair of American Crossbills, at the home of Miss Annie Bates.—ELSA G. ALLEN, *Treasurer*.

Chautauqua (N. Y.) Bird and Tree Club.—The work of our Club was opened in July by our president, Mrs. Robert Miller. Informal talks were given throughout the summer. Mr. Mayor, of the American Nature Association, discussed his publication of the splendid new periodical, *Nature Magazine*. Mrs. C. E. Wilkes told of her visit to the Kauri tree park in northern New Zealand, and to the Penguin Islands, particularly Dauson, in South Africa. Dr. Mary Jewett reported on the recent progress for the movement of making Chautauqua a bird sanctuary. The Club picnic in Miller Park proved an interesting diversion, as did also the annual supper which marks the close of the season.

Mrs. Robert Miller, president of the Club since its organization, was elected as honorary president in the annual election. The officers of the Club are, president, Mrs. S. E. Perkins; first vice-president, Mrs. C. E. Wilkes; second vice-president, Mrs. Plaisted; third vice-president, Miss Mitchell. The work of the Club for the coming year has been divided among the following committees: Plant-Life, Mrs. Lillian Smith, chairman; Civic, Mrs. C. Green, chairman; Bird-Life, Dr. Jewett, chairman; House, Mrs. C. E. Wilkes, chairman; Membership, Miss Secrist, chairman; Program, Elizabeth Miller, chairman; and auditor, Miss Leslie.—(Miss) ELIZABETH MILLER, *Corresponding Secretary*.

Cocoanut Grove (Fla.) Audubon Society.—Owing to the passing of our beloved president, Mrs. Kirk Munroe, we held only two meetings during the winter. The first was called by the vice-president, Mrs. W. L. Little, for executives and charter members, to discuss the future of the Cocoanut Grove Audubon Society. As Mrs. Munroe had on numerous occasions spoken of the Audubon work in Cocoanut Grove as "being done," and of confining ourselves to about two meetings a year, deeming that adequate since Cocoanut Grove is a Bird Sanctuary, it was necessary to get the opinion of the active members and executives, and it was decided to continue to hold meetings, subject to the call of the president.

The annual election of officers was held in April, at which time Mr. Kirk Munroe was made honorary president for life. The other meeting was more in the nature of a memorial, the Society paying tribute to its founder, but the birds were not left out. There was a lively discussion about ruthless killing of birds at the Royal Palm State Park by Indians. It was decided that a protest should be drawn up by the Society and sent down by Mr. Bailey, who was present and offered his services, as he intended to leave the following morning for a trip through that section.

Mr. Pearson's article in BIRD-LORE, on the enforcement of laws for bird-protection, was read by Mrs. David Todd, and after listening to the appeal and hearing about the bird-slaughter, we felt that there was still enough work left, and we are banded together to take care of whatever may come up.—(Mrs.) A. B. WADE, *Secretary*.

Columbus (Ohio) Audubon Society.—Membership in the Columbus Audubon Society varies. Many, losing their active interest, forgot to come to the rally meeting in October to pay their dues and elect officers for the coming year, but others, full of what they had learned during the summer, came to the meeting eager to become members. Most of the new recruits are from the Boy and Girl Scout camps. Last November, old and young joined in a social meeting at the country home of Dr. R. D. Woodmansee where they popped corn, toasted marshmallows, and played bird-games. Most of the parents came to bring the Junior members but became interested enough to join.

At Christmas time the Society made a special effort to emphasize the bird question. In the Public Library was placed a Christmas tree decorated for the birds, covered with popcorn, suet, red peppers, and pieces of bread. Then, around the tree, on tables, were suggestions for Christmas gifts for bird friends—bird-games, calendars, books, bird-baths, houses, and feeding devices. So, what to do with their Christmas trees and just what bird books to get for Johnny or Mary attracted many visitors and gained new members for the Society.

Through the winter the programs for the meetings consisted monthly in experiences of the different members, then the field-trips, beginning in March, brought new recruits, and by the last of the month when the Columbus *Evening Dispatch* was holding a bird-house contest, the Society, in cooperation with them, sent for Edmund J. Sawyer of Syracuse, to lecture and show one hundred bird slides at Memorial Hall, which was thrown open free to the public. Interest in the lecture was the means of many membership application blanks, which were distributed through the audience, being filled out and returned to the secretary.

Field-trips were held every Saturday from March until June, the last being in the nature of a picnic, with twenty-five members in attendance, a bird and flower identification contest adding interest.—(Miss) LUCY B. STONE, *Secretary*.

Community Bird Club of Woodsville (N. H.) and Wells River, Vt.—During the year we held meetings on the third Monday evening of every month except June, July, and August. Interesting talks were followed by discussions. We also held one picnic and one walk for Junior Members under the direction of Wendal Smith.—(Mrs.) C. H. BURKINSHAW, *Secretary*.

Cumberland County (Maine) Audubon Society.—The Society has shown much activity during the year. Five meetings, with public programs, have been held and seven meetings were held by the directors. The January meeting was given over to a dinner, with two delegates from each of the Audubon Societies and bird clubs of the state, invited to be present as guests. The attendance was good, and matters of general state interest were discussed.

In addition to the maintenance of a series of feeding stations by the Society, it was found necessary to feed the immense flock of Black Ducks which annually winter in the limits of the city of Portland. This work was carried on for several weeks during the severest weather of the season. It is extremely gratifying to be able to report that the managers of the two local newspapers took an active interest in the subject, affording invaluable aid in raising funds for this good work.

Governor Baxter appointed April 13, 1923, as the third annual Bird Day, with the request that the schools throughout the state hold special exercises appropriate to the day. The Society cooperated in this to the fullest extent possible, furnishing speakers to visit many city and suburban schools. The use of two tracts of privately owned land has been offered to the Society for bird sanctuaries, the one, in South Portland, within a short walk of a trolley line, by Hon. Frederick W. Hinkley, containing field, woodland, pond, and brook; the other within the limits of the city of Portland, a well-watered tract of woodland, by Governor Percival P. Baxter. The Society took definite steps to bring about a cat license law for the state, introducing a bill in the Legislature, supporting the same with so much force that a definitely organized lobby, maintained by a group of legislators, turned out in force to accomplish its defeat. A series of field excursions were carried out during the spring migration, with fair success.—ARTHUR H. NORTON, *Clerk*.

Dayton (Ohio) Audubon Society.—Our Audubon Society was formed in February, 1923, and immediately became an affiliated part of the National Association of Audubon Societies. Thus far we have had four regular business meetings. We have also had a field meeting in July and another in August.

Our president is Miss Leila Ada Thomas. Already we have formed the nucleus of a band of women who will go to the various public schools and give bird talks to the children. We have also organized a Junior Audubon group which is independent of district or school terms.—(Mrs.) CASTRACANE-PATTERSON, *Secretary*.

Doylestown (Pa.) Nature Club.—The Club has extended its interest in bird-work by an increased membership in the Club and the fostering of a Junior section; also the planting of 400 trees last spring, at the Nature Club's Bird Sanctuary, Font-hill, Doylestown, Pa. It is the aim of the Club to have growing at its Sanctuary all of the trees, bushes, and wild flowers native to Bucks County. Special protection is given to the wild fruits and berries in order to entice the wild life to this haven of rest and security.

The Sanctuary is composed of 80 acres, with winding streams and pools of spring water, and 5 acres of woodland. If the 400 trees, consisting of Tulip, Black Walnut, Hop Hornbeam, Persimmon, Sugar Maple, White and Red Oaks, Hemlock, Sour Gum, and Red Maple, lately planted, continue to grow,

the birds will have a choice of resting- and nesting-sites. Between twenty and thirty species of birds nest at the Sanctuary, including the Field, Vesper, and Song Sparrows, Robins, Baltimore Orioles, Barn Swallows, Killdeers, Meadowlarks, Ring-necked Pheasants, Quail, Brown Thrashers, Wood Thrushes, and the Pigeon Hawks which nest in with the Pigeons.

During the severe weather in winter, the Juniors keep the feeding-boxes and suet-boxes filled. The Juniors, numbering sixty, are following in the footsteps of the mother Nature Club and are being trained to love, succor, and conserve the wild life of the country, and to observe and admire the beauties of nature.—MRS. IRWIN M. JAMES, *President*.

Elgin (Ills.) Audubon Society.—During the past year we have been chiefly occupied with the museum. Progress with this project is necessarily slow, but the Society has been able to obtain much material of real value. The great need, at present, is to classify the collections, and for that purpose a committee has been appointed. A start in the labeling and arrangement of specimens has already been made. We have divided the city into eight zones, each containing a park, cemetery, or wooded tract. Our object is to systematize the study of birds by members of the Society. It is hoped that persons living in each zone will feel personally responsible for the birds in their area.

With the intention of learning more about individual birds, the members have provided themselves with the Educational Leaflets of the National Association, and at each meeting of the Society two birds are discussed. The discussion is started by one member who has given particular attention to the birds studied. Additional information is then supplied by other members. The Elgin Audubon Society is planning to present a moving picture here for the purpose of re-funding the treasury. Our president, B. F. Berryman, is especially desirous of starting a library and a collection of bird photographs; some of the pictures will be made into slides.—CYRIL E. ABBOTT, *Secretary*.

Hamilton (Canada) Bird Protection Society.—During the year six regular meetings were held, being addressed by local speakers and highly appreciated. A Christmas bird-census was again taken for BIRD-LORE. With six parties working in different directions and covering a larger area than last year, we were able to report a greater number of species. The Society conducted its usual bird-walks in the spring during migration and reported a great many species of birds and compiled a list. In February a number of Ducks were found in a starving condition in Hamilton Bay and we fed them. The Parks Board gave the Society a grant of \$50 to help buy bird-boxes which were erected along a prominent driveway in the city.

The Junior work was carried on as before. The bird leaflets of the National Association in New York were supplied to clubs formed in the schools,



MISS ELIZABETH HUNTING
Secretary of the Hartford (Conn.) Bird Study Club

and prizes given. Mr. Harrison F. Lewis, Chief Federal Migratory Officer for Ontario and Quebec, visited the schools and gave the girls and boys some valuable information on bird-protection and conservation. A cancellation stamp, used last year by the Society, bearing the motto 'Protect the Birds and Help the Crops,' was again used on all outgoing mail during the spring migration. We have heard from other societies who adopted this means of advertising bird-protection. Under the auspices of the Society, an exhibition of wild-life photographs was held in the Public library. This exhibit was visited by thousands of people, and by means of pamphlets and cards, bird-protection was advertised extensively.—RUBY R. MILLS, *Secretary-Treasurer*.

Hartford (Conn.) Bird-Study Club.—Another happy and prosperous year has been enjoyed by the Hartford Bird-Study Club, with Mr. White as its president. Seventeen indoor meetings have been held. These were well attended and the papers and discussions on a great variety of subjects relating to nature-study have been thoroughly enjoyed. Illustrated lectures have been given by Dr. John May, Winthrop Packard, Mr. Wilson, and Prof. Arthur A. Allen. Twenty-three field-trips have been taken, and during the summer, when the Club does not hold regular meetings, there were five field-trips. Attendance varied from 8 to 38 and only one trip was omitted on account of the weather.

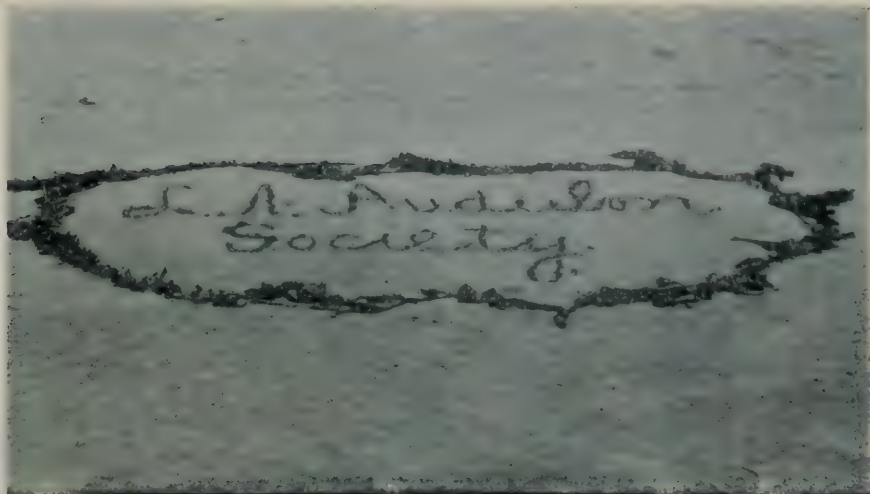
The Saturday morning lectures, one by Donald McMillan and the other by Allan Finlay, under the direction of Mrs. Vinal, have been a great success, financially as well as educationally. During the census days, May 20 and 21, 131 varieties of birds were seen, as contrasted with 125 seen the year before. The winter of 1922-23 will long be remembered as a wonderful one for the 'snow-shoe squadron', many delightful tramps being taken through January and February.

One of the principal events of the year was the purchase of a bird-case to be kept at Center Church House. It has already been the means of several fine specimens being presented to the Club. A feeding-tray has been placed in Elizabeth Park, and during the winter food was purchased and taken to the birds in the woods. During the year, 46 new members have been voted into the Club, which seems, not only in numbers but in the influence which it has upon the community, to be steadily increasing.—(Miss) ELIZABETH HUNTING, *Secretary*.

Hesston (Kans.) Audubon Society.—The past year has been another one of considerable activity by the Hesston Audubon Society. While nothing spectacular or remarkable has been done, yet interest has been maintained in the study and befriending of birds. Occasional meetings of the Society were held during the winter and spring. A chart was prepared again for re-

cording the first arrival of summer and migratory birds. Paul Bender has the honor of reporting the largest number of new arrivals. A total of 55 species were recorded, besides the 18 winter species which headed the list. Through the special efforts of S. M. Kanagy, one of our members, a large and attractive Martin-house has been placed on the college campus. It is the property of the Society. Two members of the Society took part in the annual Christmas bird census conducted by BIRD-LORE. The Society furnished the magazine for the college library. One illustrated lecture on bird-life was given by J. D. Charles, in February, and an interesting nature program by members of the Society in May.—EDWARD YODER, *President*.

Los Angeles (Calif.) Audubon Society.—Our work has progressed along similar lines to those of previous years, with nine high-grade lectures on some phase of nature lore by scientific speakers; nine field-study days with competent guides and weekly trail-trips for bird students. The regular Executive Board sessions have teemed with animation and new ideas. Bird-banding, fostered by and introduced into our Society by J. Eugene Law, has made several converts whose careful trapping and handling of the birds deserve high commendation. Regional migratory bird-notes for this vicinity have been checked off and carefully prepared for BIRD-LORE by our able chairman, Frances B. Schneider. Nature talks have been given before women's clubs, P.T.A., Boy Scouts, Sunday-schools, and church organizations. Several rare species of birds have been observed by our members and the data forwarded to *The Condor* for publication. The rarest of these, an albino Nuttall's Woodpecker, was discovered by Mrs. Warren Martz and Mrs. Irving



ON THE SANDS OF THE PACIFIC
Photograph by Mrs. F. T. Bicknell



MRS. W. W. DAVIS
Secretary of the Minneapolis (Minn.) Audubon Society

J. Mitchell. Other unusual birds identified were the White-throated and White-crowned Sparrows, Snowy Egret, and Black Brant.

Among the minor activities have been the enrollment of two historical trees in the Hall of Fame for Trees of the American Forestry Association and the choosing of our native Mariposa lily and the California live oak as the Society's emblems. The Western Tanager had already been selected to represent the Society, and its colors, woven into a ribbon rosette, surmounted by the Western Tanager Audubon button, constitute the official badge. On June field-day we entertained the Pasadena and California Audubon Societies and the Southwest Museum Bird-Study Club, with Pasadena talent furnishing a splendid program. A new department in the California Federation of Women's Clubs, that of State Chairman of Birds and Wild Life, was created in July, and Mrs. F. T. Bicknell appointed to fill the position. With Mrs. Harriet Williams Myers, author of 'Western Birds,' representing Los Angeles district in the same capacity, and competent bird chairmen in the other five districts, California should stress her wild life department this coming year to much purpose.

After serving seven years as president of the Los Angeles Audubon Society and being re-elected for another term, Mrs. F. T. Bicknell was presented with a beautiful, appropriately engraved gold wrist watch by the entire membership. Enrolling new members and training them to fill the vacancies of retiring officers, will be strenuously pushed the coming year.—(Mrs.) F. T. BICKNELL, *President*.

Minneapolis (Minn.) Audubon Society.—This Society has been affiliated with the National Association since we organized, in 1915. We take 38 copies of BIRD-LORE. While our membership is not large (96 members, including 8 life members), the interest we have aroused in the community is very gratifying; bird-baths, feeding-boxes, and nesting-boxes may be seen throughout the city. There are also many Junior Societies in our public schools.

During the past year, nine regular meetings and one social meeting were held in the Audubon Museum room. Among the speakers were Ritt E. Olmstead, of Excelsior, Minn., showing some excellent slides, Dr. Thomas E. Roberts, of the University, showing some very fine films; Mrs. Charles Speedy, of Excelsior, Minn.; Prof. Dietrich Lange, of St. Paul; and Charles M. Holt, of Minneapolis School of Dramatic Art. At two meetings, which were held in the evening, music was furnished by pupils from the grade school orchestras and from North High School orchestra. At our social meeting, a bird-contest was held and a bird Victrola record given as a prize to the winner of the contest.

Some members attended lectures given by Guy C. Caldwell in Minneapolis and William L. Finley in St. Paul, also Henry Oldys' field-walks and lectures given at the University summer session. Through the courtesy of Dr. Roberts, the Society enjoyed three of Mr. Finley's films, shown at the Biology

Building at the University, December 7, 1922. Four of our members attended the meeting of the American Ornithologists' Union at Chicago, in 1922. May 11, 1923, a picnic at John Hayden's summer home, at Tonkawood, was well attended. American Pipit and American Crossbills were the unusual birds observed. Our annual picnic was held June 15, with a bird-walk and campfire supper at Glenwood Park.

As a medium of advertising the Society and interesting the farmer in bird-life and preservation, five radio talks were broadcasted in March and April, during the lecture hour at WLAG Minneapolis Broadcasting Station. Mrs. R. H. Wells talked of the food of birds and imitated some of their songs. Miss Mathilda Holtz spoke on the 'Migration and Flight of Birds,' 'Birds as a Hobby' and 'The Economic Value of Birds to the Farmer.'

Weekly bird-walks in three groups began March 27 and continued through the migration season. A Caspian Tern, found on Lake Harriet, and a Western Grebe, on Lake Calhoun, were birds not usually seen in this locality. We have various committees, including one on legislation. The Society, working in coöperation with the Wild Flower Protective Society of America, exhibited in 'The Minneapolis Journal Travel Bureau' some mounted specimens of birds that may be seen by tourists while riding through the country, along with an exhibit of wild flowers.—(Mrs.) EVA N. DAVIS, *Secretary*.

Montclair (N. J.) Bird Club.—There has been an increase in membership, and interest continues, especially in the field excursions. On the all-day Christmas census, 19 species, (332 individuals) were counted. The joint walk with the Green Mountain Club in May was attended by about 45 people and 48 species of birds were observed. This has become an annual event. The observers were guided through the collection of the State Normal School, where specimens of the birds of the season were seen, and the party then divided into several groups, under different leaders, for the field observations, all meeting later for picnic supper. Walks were held weekly during migration season. Especially enjoyable was the all-day trip to Wyanchie, in north-central Passaic County, on May 19, when about a dozen members were guests of Prof. Will S. Monroe at his camp.

Under the auspices of the Fairhope School, but sponsored by the Bird Club, a large audience attended an illustrated lecture by Mr. Gorst on April 28. One of the results of the annual meeting, which was well attended, was a division of the membership into active, associate, and junior members. Members of the Club continue to assist the town's animal warden in the control of the marauding cat, and a large number of these vagrants have been seized during the year, as provided for by town ordinance.—(Miss) LUCY N. MORRIS, *Secretary*.

Nature Club of Princeton (N. J.).—The work of the Nature Club of Princeton, formerly the Princeton Bird Club, during the past year has been

marked by a rapidly increasing interest in our wild birds, particularly by the boys and girls of Princeton. The plan to divide the town into sections, for the organization of Junior Bird Clubs, each under the direction of a member of the central organization, appointed by the president, has been eminently satisfactory. The enthusiasm and friendly rivalry between the boys and girls of these separate units has added materially, while the institution of photographic contests and the offer of various small prizes by the Club for notebooks and individual work of the children has also proved a successful undertaking. The members of the Junior unit above mentioned are required to pay annual dues of only 10 cents instead of \$1, which is the sum collected from all adult members. Through the efforts of Professor Phillips, a friend of the Princeton Bird Club presented to Princeton, for Carnegie Lake, two pairs of Swans, on the undertaking of the Club to assume the financial responsibility of feeding and caring for the birds. These Swans are a great addition to the lake and a source of much interest.

The Princeton Nature Club, through its Committee on Education and Library, maintains a nature corner in one of the rooms of the public library! Here, exhibits of pictures, stuffed birds borrowed from the University Museum, wild flowers, branches and leaves of trees, etc., are maintained and continually changed to provide a continuous attraction for the children. This work,



ARTHUR NEWTON PACK

Associate Editor *Nature Magazine*, and Secretary of the Nature Club of Princeton, N. J.

formerly conducted by Mrs. Stewart Paton independently from the Bird Club, as it then was, has proved such an attraction that the limited library facilities are practically swamped by the children of the town, and the community is faced with the serious problem of providing more adequate accommodations. The Nature Club has interested itself actively in a campaign to this end and is planning to conduct a fair this fall in order to secure preliminary plans and, possibly, to obtain an option on a desirable site for a new building.

Under the direction of Miss Agnes Miller, a series of nature walks have been held every week from July 1 to the end of August. In spite of the fact that a great many people have been away for the summer, these walks have been very well attended. Each week a special director has been obtained who is particularly qualified to demonstrate the different forms of wild life. Several parties have gone in search of birds, others have undertaken to learn something of the trees and wild flowers found in the neighboring woods, while one very successful expedition went by canoe up one of the tributaries of Carnegie Lake and under the direction of Mr. Silvester of the Princeton faculty studied the simple forms of water life. This has been the most successful summer program ever undertaken by the Club, and it will undoubtedly become a regular feature from now on.

During the winter a number of well-known lecturers were secured by the Club and spoke at the local theatre. The speakers included William L. Finley, Thornton Burgess, and Dr. Frank Chapman. The Club has over 250 paid members.—ARTHUR N. PACK, *Secretary*.

Nature Club of Ulster (Pa.).—The members of our Club began active work with the new year. Weekly walks were taken and, during the Warbler migration, daily walks were more often the rule. Good bird-lists were obtained. Pine Grosbeaks were new birds for our lists and were seen several times. Rose-breasted Grosbeaks, almost unknown in this locality, have been seen in several places near here as late as June 10, leading us to hope that they might be nesting, and so become summer residents.

In the spring the Club held a bird-house competition for the school children, both boys and girls taking part, and several good houses being built. Bird-books were given as prizes for the best houses. Our little town now possesses a new public library to which the Nature Club has this year presented four bird-books.—(Miss) MARTHA A. McMORRAN, *Secretary*.

Natural History Society of British Columbia (Canada).—Our Society has taken special interest in the question of the bounty on Eagles, which was being paid by the Government of this Province at the request of some of the cattle and sheep men. Through the work of the Society, this bounty has now been taken off. The cancellation stamp, 'Protect the Birds and Help

the Crops' was placed in the Victoria canceling machine in the post office, so that letters leaving Victoria carried the slogan.

The destruction of migrants at lighthouses through the influence of the light upon the birds was brought up in January by A. R. Sherwood, and a committee formed for the purpose of going into the question. Questionnaires were sent out to all lighthouse keepers, and since then many answers have been received and tabulated with regard to the information afforded. Generally it was learned that at the lights on the east coast of Vancouver Island, inland waters, no birds were attracted to their deaths by collision with tower, wireless wires, lanterns, or from exhaustion. On the west coast, the open sea outside route from the south, all this happened, and, further, birds flew into the water at Pachena light. The time appears to be from shortly after dark to daybreak, when the weather is foggy and the nights dark and stormy. Many birds roost safely on the railings and other supports and depart at dawn. The Society has only just begun the subject, and as the season has been unusually clear, the report does not cover all the different cases. Observations are being carried on and it is hoped that after the next two migrations there will be a great deal more data.—HAROLD T. NATION, *Hon. Secretary*.

Newark (N. J.) Bird Club.—The fourth annual report of the president of our Club covers the year which closed April 30, 1923. In our organization we have committees on legislation, membership, auditing, ways and means, social functions, and lantern-slides.

During the year, nine meetings were held. These were well attended, and we had several interesting addresses. Among the speakers were Prof. Oliver P. Medsger, B. S. Bowdish, Miss Caroline S. Romer, and Mary S. Sage. Under arrangements made by the field secretary, we have taken various outdoor trips for the study of birds. These included trips to Llewellyn Park, Budd Lake, South Mountain Reservation, Verona Park, and one to the home of Mrs. William J. Hanlon.

On April 21, we journeyed to the American Museum of Natural History and saw the collections there under the personal guidance of Martin L. Cox. We have had many social evenings together, the final one of the season being held at the home of Mrs. Alfred Reeks. During the year the members have been invited by the Chiakong Tribel Burroughs Nature Club and other organizations to join in their monthly meetings, hikes, and various trips. Recently we purchased twenty-four colored lantern-slides for use at meetings. Our activities have been reported frequently in the newspapers, and the thanks of the Club are extended to the public press of Newark for the cordial support it has given our operations.

The membership of the Club now numbers 150. I desire to tender my thanks to the remaining officers and to the committee members who have aided in the work of the Club the past year.—HERBERT L. THOWLESS, *President*.

Onondaga (N. Y.) County Bird Club.—The meetings of the Club this year have been featured by a number of illustrated lectures. Mr. Herbert K. Job, of the National Association, gave a motion-picture lecture on the birds in the Louisiana Sanctuary. Prof. P. H. Struthers, of Syracuse University, gave a lecture on the birds of Porto Rico. He also exhibited an excellent collection of skins and mounted birds obtained on that island. Mr. E. H. Sawyer, of Watertown, N. Y., illustrated his lecture by beautiful lantern-slides and water-color plates painted by himself.

Another interesting series of talks was given by members of the Club, each of whom described some 'Red-Letter Day' in their bird experience. Among the results of these talks was the addition of several new birds to the fauna of the vicinity, notably the Pileated Woodpecker.

Among the members of the Club are several high school biology teachers and through their efforts a number of Junior members are being added to the Society. This year the difficulty has been the inaccessibility of the meeting-place; now that this has been corrected we expect a still greater attendance at the meetings.—STANLEY C. CHURCH, *Secretary*.

Pasadena (Calif.) Audubon Society.—Santa Monica, Ocean Park, Hermosa Beach, Wilson's Mills, Devil's Gate, Pleya del Rey, Arroyo Seco, Milliard's and Eaton's Cañons, the Ridge Route, Eagle Rock, Sycamore Grove, and Griffith Park have been our objectives, or points of departure, for bird-walks and field-days during the year past. Planned by our trail leader, Mrs. P. S. Goulding, we have shared with all bird-lovers these opportunities for delighted observation of our many little California brothers of the air, ranging from a baby Phainopepla to a flight of Pelicans, from the Road-runner to the great Golden Eagle. Of the many bird-haunts near Pasadena, none, perhaps, is better loved than Eaton's Cañon, called by John Muir "the Yosemite of the San Gabriel." "Eaton's Cañon, close to whose entrance the villas of Pasadena are rapidly rising, is notable as being an example of rugged, unspoiled wildness at the very edge of one of the best-groomed cities in the United States." So writes Charles Francis Saunders.

We have been fortunate in the programs at the monthly meetings held in a cozy auditorium of the new Y. W. C. A. Notices in the local press invited the bird-loving public to these meetings, and many tourists and men and women of distinction were noted in the audience. Appropriate music is a constant factor at these indoor meetings; only space forbids mention of names of all the gifted artists who have contributed so much pleasure to these hours, but we cannot pass over the name of Naomi Sweeny Brown, the 'California Mockingbird,' who, with her partner, under the boughs of the romantic sycamores of the Arroyo, whistled a bird courtship of exquisite coquetry and passion; of Miss Marion Ralston, who gave us a modernist bit inspired by memories of a frog-pond; nor of the fluting voice of Mrs. Norman Hassler.

Various professional and amateur bird-workers have given talks open to the public: Prof. O. T. Denny, of St. Paul, 'The Story of the Cranes'; Dr. Bull, 'Ravens and Crows,' with specimens; Eugene Law, 'Bird-banding,' with field demonstration; Dr. Rosland Ross, 'Sparrows and Flycatchers,' with bird-notes whistled; Philip Crow, youthful president of the 'Chickadee Audubon Society of Glendora,' a talk on 'California Birds Which Build in Bird-Houses'; Mrs. Harriet Meyer, vice-president of the California Audubon Association, notes of birds seen at her Sierre ranch; Dr. Jacolyn Manning, a synopsis of her unpublished manuscript story, 'Reforestation and the Blue Jay.' The Pasadena Audubon Society donated \$150 toward a fund for providing pictures of Pacific Coast birds for use in the public schools; Mrs. T. H. Patterson and friends donated \$300 to the extension of the aviaries in Central Park. We have had several field-days with the Los Angeles Audubon Society, and the Bird-Lovers Club of Southwest Museum.—Dr. JACOLYN MANNING, *Corresponding Secretary*.

Provancher Society of Natural History of Canada.—Much work has been done the past year, both educational and protective, such as, distribution of literature and showing motion pictures to school children; a concert recital at Laval University Hall by Mr. Avis, renowned bird-imitator, attended by over 1,500 people. For the third year, W. R. Brown, of the Brown Corporation, has, at the request of our Society, paid the expenses of a game-warden for our bird colony of the Razades, for which we are much indebted to him. Special game-wardens have been appointed. Nine bird sanctuaries have been erected in cemeteries, private parks or gardens, and in school parks. Window displays and exhibitions of migratory birds have been made and admired by the public. The Investigating Commission has also made careful and interesting observations. The membership is 160.—JOS. MATTE, *Secretary*.

Racine (Wis.) Bird Club.—We have had regular monthly meetings. At some of these the Club members have told of their experiences; at others, speakers from abroad have been present. During the migratory season, bird-walks were taken on Saturday afternoons and Sunday mornings. On one occasion, the Club joined with the Milwaukee Bird Club in a walk to the South Milwaukee ravine. Our president, during the spring, did a great deal to interest the young people and women of the city in birds by giving interesting illustrated talks on birds before different organizations and clubs.

Bird migrations are reported to the U. S. Biological Survey by one member. This summer she has discovered a colony of Black-crowned Night Herons in our vicinity, a bird new in this locality. The work of bird-banding has been most successfully carried on by another member. She has banded 220 birds,

including Robins, Cedar Waxwings, Hermit Thrushes, Gray-cheeked Thrushes, Olive-backed Thrushes, White-throated Sparrows, an Oven-bird, an Oriole, a Florida Gallinule, and many other varieties. Under the direction of the chairman of the Bird-House Committee, a large number of bird-houses were built by the boys in the junior high schools. These have been placed in the cemetery and parks, and have been distributed to members for their own yards.—(Mrs.) KATE T. SOGARD, *Corresponding Secretary*.

Rhinebeck (N. Y.) Bird Club.—Four lectures have been given during the past fifteen months under the auspices of the Club—two by Dr. G. Clyde Fisher, one by Dr. James P. Chapin, and one by Mr. Edward Avis. The Junior Audubon classes in the schools have been kept up and the membership has been good.

A supplementary list of the birds of Dutchess County, N. Y., appeared in the January, 1923, *Auk*, based on the original catalogue issued by the Club in 1921.—MAUNSELL S. CROSBY, *President*.

Rockaway (N. Y.) Bird Club.—Owing to the removal of a number of our most active and enthusiastic members, meetings were not held regularly. Much of our past year's work has been with the school children and Boy Scouts. Following our custom for several years, prizes were given to pupils for the best bird-records kept. The children were allowed to choose their own prizes and those selected were all bird-books. Teacher-members have been active in organizing Junior Audubon Societies; those of one grammar school alone enrolled over 200 pupils. In May, under the joint auspices of the High School Bird Club and this society, an illustrated lecture was given by Herbert K. Job. Throughout the year, our president, Miss Laura B. Broomall, lectured on birds before various groups of Boy Scouts, using the stuffed bird specimens, generously loaned by the American Museum of Natural History.

The scheme, started last year, of having the members of the High School Bird Club give talks to the pupils of the grades was continued. This has been of mutual benefit in that it instructed the younger pupils in bird-lore and brought out in the older ones, not only their knowledge of birds, but their elocutionary powers and the development of self-confidence. The various members have maintained bird-houses and bird-baths in the spring and summer and feeding-stations in the winter. Bird-walks, for the purpose of observation, have been carried on by small groups.

Legislation for the protection of birds has been encouraged by letters, and encroachment upon our National Parks for private enterprises has been vigorously protested against. The public library has been most helpful in lending pictures and giving other help. Our usual dues to the National Association have been paid and a contribution was made to the Egret Fund.—(Miss) M. S. GREEN, *Secretary*.

St. Louis (Mo.) Bird Club.—Our referee on legal questions is George Mackey; the Committee on Bird-Sanctuary is headed by Joseph Bray; the management of bird-walks is in charge of a Committee of which Miss Blattuer is chairman; Mrs. Jesse M. Greenman is in charge of publicity; Mrs. Hugh Weed has taken on the important function of posting places in need of protective measures; our large Junior membership is cared for by Miss Louise Becker and her Committee. The Club has formally offered its support to the St. Louis Natural History Museum. The first attempt to conduct bird-walks in the fall was made last November. Together with the Audubon Society of Missouri, the Club had the pleasure of hearing Dr. A. A. Allen in a lecture illustrated with his own bird photographs from life. A larger number of schools this year took part under the direction of Miss Becker's Committee in preparing Christmas trees for birds in the St. Louis Parks. A Christmas bird-census was taken and reported. Members of the Club, on January 14, observed nine species in the Antire Hills in the southern part of St. Louis County. Two apparently new observations were made regarding distribution: Chuck-will's-widow in St. Louis County (R. J. Terry), and Bickwell's Thrush in St. Louis (Richard Pough). Bird-walks were conducted in the city's parks during April and at Creve Coeur Lake, May 5 (96 species seen). Officers of the Club were invited to inspect the estate of August Busch at Grant's Farm, St. Louis County, which has been especially planted to attract birds. The annual meeting took place on May 18; a marked increase in the Junior membership was reported; the adult membership numbers 4 patrons, 18 life members and 113 annual members.—R. J. TERRY, *President*.

St. Petersburg (Fla.) Audubon Society.—St. Petersburg has the proud distinction of having 100 per cent Junior Audubon members in some of the public schools. The local Audubon Society has purchased from the National Association more than 1,500 sets of Bird Leaflets for use, and demands were made for more at the close of school, since pupils wished to get them for little brothers and sisters too young to attend school. Many of the extra pictures ordered early were used for valentines. Miss Natalee Sterling, principal of the Central Primary, led with 610 members to her credit. Miss Sterling is a true bird student and plans her nature work with rare intelligence.

The \$5 in gold offered by the St. Petersburg Audubon Society for the greatest number of Junior Audubon members was won by Miss Sterling's school. Up to this year, a banner had been the prize, but a change was requested for cash to be used for improvements of grounds. Miss Sterling added the prize money to the fund for a large bird-house and observed the last day of school as Bird Day, when a wonderful Martin-house, with apartments for ten families, was raised and dedicatory exercises held. The classes were stationed in different parts of the spacious school-grounds under the mighty oaks, which naturally attract many birds the year round. One after

another the different classes sang bird-songs, imitating the bird-notes, liting them back and forth in greeting and responses. A bird-bath, costing \$17, had been installed earlier, and Miss Sterling says it brings all the birds there, to the delight of the pupils, who also feed them.

The Central Primary raised \$317 during the year by candy and ice-cream sales and expended it in the beautification and upkeep of the school-grounds. Dr. Chapman's 'Birds of Eastern North America,' offered as a prize annually by the Audubon Society of St. Petersburg for best true story of bird-observation, was won by Robert Bary of Central Primary, third grade. Miss Mabel

Kelso, the principal of Roser Park ward school, was held back only by lack of numbers in her school. She is well versed in all nature work, and also had 100 per cent membership in Junior Audubon work. She had nearly 400 sets in use. A \$5 gold prize was also given Miss Kelso's school. It was applied to a cement bird-bath on the grounds. The Roser Park school won the first prize at the Pinellas County Fair for the best bird-poster. James Appley, a pupil in Miss Kelso's school, won the bird prize offered by the president of the County Audubon Society, Rutherford P. Hayes, for the best bird-house exhibits at the Audubon booth at the fair.

The Roser Park school won the silver cup offered for floats in a state pageant



BIRD-FOUNTAIN ERECTED BY THE ST. PETERSBURG (FLA.)
AUDUBON SOCIETY

a year ago, representing the Sunshine City, the car having many birds in its decorations. Glen Oak, another ward school, was too busy with an original school recreation field plan to do the usual Audubon work, but Miss Ethel Bachman, who comes naturally by her love of nature, being a granddaughter of Bachman, the naturalist, enrolled 100 members in a smaller school, between the successful work of selling land by the foot to school patrons to get the price of the field mentioned. The first prize of the Audubon booth at the county fair was won by George Weeks, of Glen Oak, for the best bird-house submitted. Glen Oak also took the prize for best-kept grounds.

On the occasion of Miss Isabel Goodhue's visit to this school, she spoke out under a pergola, covered with gray Florida moss and flame vine. The pupils were singing their bird-song of greeting when a Mockingbird, in a nearby orange tree, took up the notes, and Miss Goodhue, coming after, took up the tune and sang a duet with Señor Mocker. The sale of the fruit on the trees is used to beautify the grounds. North ward school, Miss Fanny Boswell, principal, had also almost a hundred members in Junior Audubon classes. The St. Petersburg Audubon Society did many other things of interest, gaining a hundred new members. It guarded the Roseate Spoonbills which are on private keys and land, but feeling that the foundation on which success rests is study of bird values in the public schools, the best efforts have been made in creating new school Junior Audubon Classes.—(Mrs.) KATHERINE B. TIPPETTS, *President*.

Sandhills (Pine Bluff, N. C.) Bird Club.—Our Club has, this year, largely devoted itself to the training of Bird Scouts, members who can identify in the field, by sight, from 50 to 100 birds. We 'hunt' for identification and play Bird Golf on certain days each week. Beginners hunt; experts play the game. When 'sets' are made up of a Bird Scout of the First Class (75 birds) and two players each who may know 75 birds, and a game is started with half a dozen sets in the field, there is something doing in the way of excitement and real sport.

There is all the difference in the world between playing a sporty game with birds instead of golf balls for pawns—a set of three persons following certain rules—and the old-fashioned way of going on a 'hunt' of identification, as is still the practice, with a 'gang' at one's heels all talking at once. Natives and tourists come to these hunts and games from all over the Sandhills. This is a splendid way to get people interested in birds and to cultivate accurate observation.

When a Bird Club starts here in the South, our plan is to send to that Club one of our Bird Scouts, who shall teach half a dozen 'grown ups' to recognize and know at least 50 birds in the field. In this way the foundation for field-work is laid, and, once started right, it will grow steadily. In the North there

are always older members in any club who are equal to teaching the younger members and beginners to know and recognize birds in the field. In the South we have no such background upon which to found a club, and so we have to meet the situation.

We have set up 120 bird-boxes. Our aim is to erect 500 in three years' time. Many of these bird-houses were donated to us by visiting tourists in recognition of our work and services to them. Some of them, beginners, learned to identify 50 birds between February 24 and April 23, under competent Bird Scouts. One of our members captured a colony of Purple Martins by hanging gourds that swayed in the wind, from a criss-cross set on a pole 25 feet in the air.

Alexander P. Holbrook, a retired business man, who has a winter home in Pine Bluff, was so pleased with the first bird lecture given under the auspices of the Club that he promptly ordered a set of 40 colored slides of birds from the National Association of Audubon Societies, representing the birds of the North Carolina sandhills in winter, and we were afforded a second lecture by the president of the Club that was quite as entertaining as the first. The crowning event of the year with us was a beautifully illustrated lecture, full of information from personal experience, by T. Gilbert Pearson, president of the National Association of Audubon Societies, who kindly included us in his lecture tour through the South on his way to the Bahama Islands.—JOHN WARREN ACHORN, *President*.

Saratoga (N. Y.) Bird Club.—Our Club held a meeting on the third Thursday evening of every month except July and August. Our tenth was to be out in the country but for unavoidable reasons was given up. The study for the winter began, first, 'Definition of Birds,' 'Birds and Reptiles'; second, 'External Parts of Birds'; third, 'order Passeres, suborder Oscines,' and going on we studied about their colors, habits, feathers, bills, etc., making a profitable and enjoyable season. Our interest has been greatly stimulated by using a hundred or more mounted specimens of birds, loaned us by our president from his collection. It is our sad duty to record the death of two of our faithful members in December and January.

Our regular lecture for the public was given in March by Henry Oldys, and was held in the auditorium of Skidman College. His subject was 'Birds and Bird Music,' and gave great pleasure to all. In April, a letter was received from our old friend, S. B. Ingersol, now residing in the South. He told of the 'Mesquite Inlet Reservation,' home of the Blue Heron. Among the other authorities heard from or quoted this winter were T. Gilbert Pearson, Henry Van Dyke, and John Burroughs. At the annual meeting an unusual poem on 'The Robin,' by John G. Monbaque, pleased us all so much it had to be repeated.

When the election of officers occurred, the resignation of our president,

Waldo L. Rich, caused deepest regret and was most reluctantly accepted. We know it will be very difficult to fill his place.—(Miss) CAROLINE C. WALBRIDGE, *Secretary*.

Savannah (Ga.) Audubon Society.—With its efficient president, Henry B. Skeele, the Savannah Audubon Society is progressing nicely and has held regular meetings from October, 1922, through May of this year. In February, bird-slides, furnished by the International Harvester Co., were shown at the Y. W. C. A. and then, later, taken to Bethesda, where they were seen by a very appreciative lot of boys.

In March, to the great delight of all the Savannah youngsters, not mentioning the grown folks, T. Gilbert Pearson, president of the National Association of Audubon Societies, honored us with a visit and gave a splendid lecture on birds, with moving pictures of the same, at the Savannah theatre. This was our 'red-letter day' of the season, and Mr. Pearson was greeted with enthusiasm and interest by a large audience. At the regular meeting in March, Miss Cushman spoke on 'Bird Music,' and Victrola records of bird-notes were given. On April 16, the annual meeting was held. Also, in April, Mr. Henry Oldys lectured at the Lawton Memorial, and in the afternoon he and the members of the Society were entertained at the country home of James Copps, a tea being given in his honor by Mr. and Mrs. Skeele and Mr. Copps. His success in calling birds and imitating their notes was marked.

In May, an afternoon meeting was held at the home of Mr. and Mrs. J. E. Wingo, at which the new game of 'Bird Golf,' devised by Mr. J. W. Achorn, of North Carolina, was played. Several early morning bird-walks were taken during the spring months, one to the Hardy Flower Garden, one to Wormsloe, the De Kenne estate, two to Laurel Grove cemetery, and one to Bonaventure. Fifty dollars was given to the Building Fund of the National Association. Among other activities, Mrs. Carleton Gibson, Chairman of the Educational Committee, did fine work, both in the city and county schools, showing lantern-slides of birds—real missionary work was this—and organizing bird clubs.

Mrs. Victor Bassett, Chairman of the Publicity Committee, has had articles on birds written by the various members and published in the *Savannah Morning News*. In addition to this, Mrs. Bassett instituted some bird-talks, conducted by Prof. Walter Hoxie, which were exceedingly interesting. Also, she placed in the public library a glass case for birds, making it possible for children to see the mounted birds, learn their names and study them, the birds to be changed at intervals. Already a very entertaining and instructive program has been outlined for the coming year and we are looking forward to many happy meetings together.—(Mrs.) B. F. BULLARD, *Secretary*.

Scranton (Pa.) Bird Club.—The year's work formally opened with a public lecture by T. Gilbert Pearson on 'Value of Bird-Study.' During the

winter, the regular program of the Club was followed. The birds' Christmas tree festivity was conducted by kindergarten children under the direction of Miss Elizabeth Rice and Miss Helen Hay. The Christmas Bird Census and the planning for and the carrying on of the winter bird-study classes (each Saturday for six weeks, beginning January 17) were successfully conducted by R. N. Davis, 109 people registering for these classes, the highest attendance being 70 and the average attendance 45.

During the late winter the snow was so heavy that the Club's president, Mrs. F. H. Coffin (1528 Jefferson Avenue, Scranton, Pa.) planned a winter feeding scheme by securing the interest and assistance of bird-lovers, Scouts, and custodians of water company property in and adjacent to the central city. There was a hearty response, and within one week twenty-four stations were reported and much food was generously donated by friends of Scranton birds.

In February, at the Scranton Health Club's exhibit, the Bird Club had an attractive booth from which were distributed copies of a pamphlet (prepared by Mrs. Coffin) on 'Bird Protection and Health.' At this time a bird-house competition was conducted by the Bird Club and the houses exhibited in the Club's booth.

During the spring migration, early morning walks were conducted by the Club for three days each week during a period of six weeks. The groups were under carefully selected leaders who reported 117 people participating and 67 different kinds of birds observed. The Girl Scout merit badge examinations were given by Mrs. Edgar Slurz, and the prize of field-glasses for the builder of the first house reported occupied by Bluebirds was awarded to Russell Burke. During the late spring the constitution of the Club was changed and its membership list revised by means of a circular letter. All this in preparation for the official report, which is being compiled by Mrs. Coffin and Mr. Davis, and which will contain a record of the Club's activities, membership and the list of birds seen in Lackawanna County. This valuable report will be mailed to each member of the Club.—(Miss) ELEANOR P. JONES, *Secretary*.

Sewickley Valley (Pa.) Audubon Society.—This year we have given first attention to the young people, with the purpose of cultivating among them an intelligent and sympathetic interest in birds. To that end we conducted, during the spring months, a series of talks to children in schools. Twelve of these were given in as many different school buildings, and in some cases the audiences were made up of the pupils of two schools or more. The country about Sewickley, within a radius of 10 miles, was thus fairly well covered, and about 1,500 children heard the addresses. Seven were given by George M. Sutton, of the staff of the Carnegie Museum in Pittsburgh, the other five by M. Hegner, a member of the Society. On these occasions Educational Leaflets were distributed. Mr. Norman McClintock was the guest of the Society, and delivered a lecture illustrated with motion pictures of birds. On the

occasion of his visit, and through the generosity of its management, the local motion picture theatre was put at the disposal of the Society, and there, in the afternoon, the pictures were shown to about 300 school children.

Boy Scouts have been examined to qualify for promotion. A second lecture delivered before the Society was by Professor Fish of the University of Pittsburgh, on 'Mendel's Law.' A wider interest in birds has been awakened by the placing of beautifully designed notices at suitable places, bearing the legend, 'The Sewickley Valley a Bird Sanctuary.' The suggestion which the legend carries has met cordial response. Through the generosity of a member it has been possible to obtain durable notices made of enameled iron. A modest magazine called *The Cardinal*, and devoted to local ornithology, has made its début. Two numbers have appeared, and the editions have rapidly been exhausted. The printing art of Mr. Hays, a member of the Society, has made this publication beautiful in form. Another member of the Society, John B. Semple, is now with the ornithologists of the Carnegie Museum on an expedition to Hudson Bay, in quest, primarily, of specimens of the Blue Goose. These are to be used in forming a habitat group in the Museum. Mr. Semple's generosity has made this expedition possible.—BAYARD H. CHRISTY, *President*.

South Haven (Mich.) Bird Club.—During the year we have had a speaker, Miss Hadey, from Western State Normal School. On May 15, we had a 'bird-hike' and the public was invited for the day, with a picnic dinner at noon. One of our members, A. D. Moore, is doing a great deal of bird-banding. He gave the Club a splendid talk about his work and also of the experiences of other bird-banders that he had visited. Our secretary was sent to the state convention at Ann Arbor and brought back a complete report of the two days' pleasure. Perhaps the best thing that we have done is to start Junior Audubon Societies in the schools.—(Mrs.) AYRES, *Ex-Secretary*.

Stanton (Maine) Bird Club.—In the past year we have added sixteen new members; have been given two small collections of nicely mounted birds; have held four regular meetings; an exhibition, open two afternoons, and evenings; three delightful out-of-door meets with picnic suppers following; three winter walks; and two evening walks in May and June, planned especially to listen to the vespers of the birds. In April we had a lecture by Herbert K. Job of the National Association. In morning walks during the spring migration we saw 72 kinds of birds. We have a loan collection of mounted birds in one of the public schools and two sets of the Audubon Bird Charts constantly circulating in the public and parochial schools.

A 'Bird Symposium' proved a very interesting feature of our January meeting. Four speakers prepared fifteen-minute papers on 'Ten Birds with Most Interesting Nesting Habits,' 'Best Ten Singers,' 'Handsomest Ten Birds,'

and 'Most Useful Ten Birds.' The program was so much enjoyed that by request it was repeated at the June meeting of the East Auburn Grange, thus happily bringing Bird Club and grange together in a common interest.

Our annual exhibition, held in May, contained several novel features, including a demonstration in taxidermy by one of our members who had been very successful in mounting birds. Another member, equipped with trap and bands, explained bird-banding. Two long tables held an interesting collection of branches and buds from over 100 shrubs and trees, all growing within a mile of town. They were numbered and on another table were dis-



MEMBERS OF THE STANTON (MAINE) BIRD CLUB ON A FIELD TRIP, AUGUST 16, 1923

played mounted specimens from the college herbarium of the same shrubs and trees in leaf and blossom, with corresponding numbers. It was called an "Identification Contest," for no names were affixed to the specimens, either fresh or dried. Our treasurer, Miss Miller, was in charge of an exhibit of mounted birds arranged in the order of their arrival.

'The Study of Nature in the Schools' was by far the largest exhibit and included paper birds of many kinds, colored and cut out by the children, stories of birds, Audubon Leaflets, and a collection of bird-houses and shelters made by the boys in manual training. Minerals, butterflies and moths, and spring flowers, wild and tame, from the school garden were shown. One table was devoted to bird-books and literature, another to birds' nests, locally collected and plainly labeled, while a special feature was the list, printed in good-sized

letters, of 156 kinds of birds seen between January and December, 1922, by one of our directors, Mr. Waterman.

Our Stanton Bird Sanctuary 'Thorncrag,' is an ever-growing joy. Through the winter months we regularly filled the feeding-trays and suet-cages with food for the birds. We are trying the plan of 'adopting' the trees in our Sanctuary. Every member chooses a tree and assumes the responsibility of looking after it and caring for its needs. It is our hope that our Junior members, through establishing friendly relations with their own special tree, will grow up with a love and consideration for all trees that will prove helpful to the cause of forestry. Lists of the birds, flowers, trees, and shrubs found in the Sanctuary are being kept and plans are under way to make 'Thorncrag' of even greater value to the community.

Local papers have greatly helped us by generously giving much space to reports of the many activities of the Club and thereby spreading the good work of bird-conservation.—(Mrs.) C. E. NORTON, *Secretary*.

Staten Island (N. Y.) Bird Club.—Our monthly walks have been well attended, frequently ending at the cabin built by the Club in the woods, where supper was eaten around a campfire. At indoor meetings of the Club, Herbert K. Job, of the National Association, has spoken, with illustrations by lantern-slides and motion pictures, on 'Bird-Life from Maine to Florida,' and Edward Avis has contributed at times his imitations of bird-songs. Several members of the Club, especially Carol Stryker and Edward J. Burns, have given lectures on birds at local schools and churches.

At the annual meeting, on May 12, 1923, held at the cabin, W. Lynn McCracken advocated a natural treatment of Staten Island parks, similar to that of Bronx Park. As a result, the president, William T. Davis, prepared a leaflet on the subject, which was distributed to all members. It was universally approved and many copies, signed by members of the Club and their friends, reached the Park Commissioner, leading finally to an expression of approval from him. At the same meeting, Carol Stryker spoke, with the hearty approval of the president, in favor of the preservation of the wild flowers seen on the bird-walks and in opposition to their being plucked or uprooted.—CHARLES W. LENG, *Secretary*.

Texas Bird and Nature-Study Club.—Since this is the first report submitted by the Texas Bird and Nature-Study Club, a brief history is perhaps in order. The importance of bird-conservation was brought so forcibly before Mrs. Clarke Burr five years ago, through her observation of the persecution of the native birds by the English Sparrow and the boy with the gun, that she decided that something must be done at once to stop it or else we would soon have no birds at all. Believing in the old adage that "if you want anything done right, do it yourself," she went immediately to work.

First, with the coöperation of the City Federation of Women's Clubs of Dallas, a rigid campaign was conducted against the English Sparrow. The next step was to teach the children to love and protect the birds. Then followed the Junior Audubon Clubs, bird-walks, and lectures. The bird clubs, bird-walks, and bird-stories became so popular with the children that they named Mrs. Burr 'The Bird Lady.' The work grew to such proportions that an organization was needed to take care of it, so the Texas Bird and Nature-Study Club was organized in April, 1922. The object of this Club is to protect birds, trees, and wild flowers and foster the Junior Audubon Clubs. We hope to have a Club of this kind in every county in Texas within the next few years.

In January, 1923, Mrs. Burr organized a club of this kind in Corsicana, Texas, the name of which is the 'Corsicana Bird and Nature-Study Club.' In June, she laid the foundation for a Bird Club in Kaufman, Texas. Through personal visits the cooperation of superintendents and principals of schools in Dallas and other cities was secured. Mrs. Burr made a special trip to Austin, Texas, to confer with the Governor and the State Superintendent of Public Schools in regard to this work and secured the promise of cooperation from both. In April, 1923, we sent a resolution to the Legislature to have May 1 set aside as Bird Day. The resolution was passed unanimously.—(Mrs.) J. H. SELF, *Secretary*.

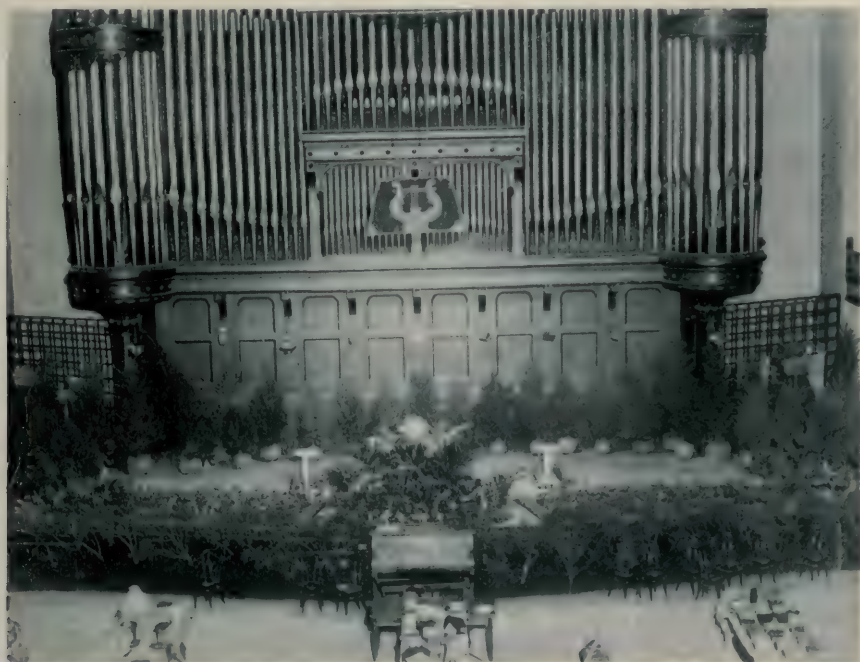
Topeka (Kans.) Audubon Society.—Our working year begins at the September meeting. Last September, the Program Committee divided the



A FEW OF THE BOXES DISPLAYED AT A BIRD-HOUSE CONTEST OF THE TOPEKA (KANS. AUDUBON SOCIETY

membership into groups, with a leader who was familiar with Kansas birds, and made each group responsible for the program for one of the monthly meetings. These were designed to awaken an interest in bird-study and to provide a way by which beginners might become familiar with our common birds. Subjects for the different meetings were assigned with the thought of discussing birds which could be found in our vicinity at the time of the meeting. For example, such titles were used as: 'Permanent Residents,' 'Winter Residents,' 'Winter Visitors,' 'Warblers,' etc. Members took a Christmas Bird Census for BIRD-LORE.

In the spring, one evening was devoted to a discussion of plans for conducting our bird-house contest. The Society furnished the prizes, rented



PLATFORM IN CITY AUDITORIUM ON OCCASION OF BIRD EXHIBIT OF TOPEKA (KANS.)
AUDUBON SOCIETY

the City Auditorium, conducted the contest, and supervised the exhibit at a cost of \$205. The cooperation of the Supervisor of Manual Training in the Topeka public schools had been assured, and about 2,000 bird-houses were made in the school shops. These were entered in the contest. The exhibit was open to the public for two days, during which time thousands of Topekans visited it. Through the courtesy of the Superintendent of the Topeka Parks and the owner of the Kansas Evergreen Nurseries, the stage in the City Auditorium was transformed into a bower of beauty. It was made to represent a garden, with tastefully arranged evergreens and flower-beds made with

potted plants. Martin-houses and other bird-houses were cleverly placed, and bird-baths and concrete garden seats added greatly to the general effect. The bird-baths and garden seats had been made by pupils of the public schools, and orders were taken and more baths and seats were made and sold later. The exhibit of houses was placed on tables in the center of the Auditorium, the seats having been removed from this section. About 300 houses were sold during the exhibit, the money going to the boys and girls who built them. The larger and better constructed houses found a ready market and more of that class could have been sold had they been available. Many of the pupils preferred to keep their houses to put up at home.—(Miss) INA MARY HARKINS, *Secretary*.

Vigo County (Ind.) Bird Club.—The Club began its seventh year with an increased membership and an awakened interest in bird-life in the entire city and community. We have held annual bird-house contests and bird-house sales, and through the cooperation of the Superintendent of City Schools, James M. Tilley, who is one of the most active Bird Club members, the work of constructing bird-houses has been carried into the schools until Terre Haute has virtually become a city of bird-houses. The City Superintendent of Parks, Harry V. Milligan, is heartily in sympathy with the Club's work and has put up hundreds of nesting-boxes in all the city parks and along the boulevards. 'Bird Sanctuary' signs have been placed in all the parks and city cemeteries.

We held ten indoor meetings during the past year, which were given over mostly to reports of the members of their observations and research work. Many outdoor meetings and hikes were conducted throughout the entire year. An illustrated bird-talk was given by Mrs. T. W. Moorehead, who was at one time president of the Club. We are anxious to extend the work of bird-protection and intend to exert our efforts during the coming year to making the tow-path north of the city a real bird sanctuary. The Nature Study Section of the Women's Department Club of the city, which is an outgrowth of the Vigo County Bird Club, has also taken the establishment of a bird sanctuary as its special task for the coming year.—(Miss) SARAH J. ELLIOT, *Secretary*.

West Chester (Pa.) Bird Club.—The past year has been a very interesting as well as a very successful one. The fifteen regular meetings had programs of a high order. Each Club member selected a bird for special study. Interesting life histories as a result of this research were important features at many meetings. Bird-study in Florida, Cuba, New York, and various sections of Pennsylvania was reported by Club members that had made observations in these fields. Dr. S. C. Schmucker gave his lecture on 'The Origin of the Individual Bird' at one meeting. Mr. Charles Pennock gave lectures on 'The Barred Owl' and 'The Mud Hens' during the winter. Mr. Pennock's

intensive study of these species made the lectures valuable sources of information.

On April 19, E. Clinton Avery gave a lecture on 'Wild Flowers and Their Haunts' in the Normal School chapel. A nominal charge was made for admission and netted a neat sum for the Club. The Committee in charge used a portion of the proceeds for the purchase of books on ornithology for children. These were placed in the Normal School library. This Treasury also provided for three prizes offered to the public school children who won in a bird-box contest, where 244 were exhibited. The teachers cooperated in seeing that the boxes were erected in time for the nesting birds. The prizes selected were: 'Book of Birds' by Burgess; 'What Bird is That?' by Chapman; 'Stories of Bird Life' by Pearson. Field excursions continue to add to the inspiration. Regular Sunday morning walks during April and May are conducted by Club members for the children of the First-Day School in connection with the Friends Meeting. This group meets at 6.30 A.M. After observation they gather at the meeting-house for a light lunch. This is followed by the regular First-Day School exercises at which a child gives a report of the field-trip.

The enthusiasm for these walks has become so contagious that children throughout the town are gaining a coveted knowledge of birds. Public school children have been taken on frequent field-trips and these have opened the eyes of the little ones to many phases of nature. The annual outing to Pequea, on the Susquehanna River, at the height of the migrant wave, was a very successful one.

Where the old Susquehanna rolls down through the hills,
This Club has erected a shrine.
Its flowers and birds; its rocks and its rills,
Are but links in the love-chain of time.

The daily press continues to publish a detailed account of each regular meeting. This, with many other agencies, is making The West Chester Bird Club an organization that stands very high in this community.—(Miss) LILIAN W. PIERCE, *Secretary*.

Wilton (Maine) Bird Club.—We are especially fortunate in having Rev. Arthur T. Craig for our leader, as his long years of bird-study have made him very efficient in the identification of birds.

The work of our Club has been much with the children. The older people met each month during migration of birds, even before this. The members bring their individual 'finds' and any interesting matter connected in observing these specimens. At the May meeting, 72 birds had been seen.

The Field Marshall arranged for walks with the Juniors. They offered three prizes to four upper grades in grammar school for the largest list of birds. The first prize was won by Elwin Stinson, with a list of 62 land-birds; second,

Willis Sewall, 56 water-birds; third, a tie—Manley Nelson and Kilburn Melendy—bird-boxes. We feel when the boys are interested in the life of the birds the work here is of great value. We are glad to be identified in the National Association.—(Miss) MARION M. RUSSELL, *Secretary and Treasurer*.



HOWARD H. C. CLEAVES
Secretary State Wild Life League of West Virginia

Wild Life League of West Virginia.—The League was organized April 20, 1922, and held its first annual meeting December 7, 1922, affiliating itself on the latter occasion with the National Association of Audubon Societies by unanimous vote of the hundred or more delegates and members present. Although young, the League has enjoyed a phenomenal growth, at present having approximately fifty branches in different parts of the state, with a total membership of between 8,000 and 10,000.

The appearance of the League in West Virginia represents the crystallization of conservation sentiment which has been forming for several years in the state, where wild-life protection has been sorely needed. The League in no wise displaces the West Virginia Audubon Society, organized in 1911, but rather embraces the Audubon program in addition to a much larger field of operation. The League is interested in forest-fire prevention, reforestation, shade-tree planting, preservation of wild flowers, stream pollution, protection and propagation of native fish, game-birds and mammals, the protection and increase of song and insectivorous birds, the recreational use of the outdoors, the education of the public, especially the youth, in relation to these things and improved legislation bearing upon the same. The League has nine standing committees, each charged with the accomplishment of work in one of the several named fields of endeavor. For example, the constitution of the League states that the Committee on Song-Birds shall "be interested in the protection and increase of our native and migratory song and insectivorous birds. It shall encourage the feeding of birds, the destruction of cats and other natural enemies of the birds, the erection of nesting-boxes and the instruction of school children as to the value of bird-life."

Following the first annual meeting of the League, there was a banquet at which the Governor of the state and other notables were speakers. On February 1, 1923, the Clarksburg Branch held its first annual banquet which was attended by between three and four hundred enthusiastic 'wild lifers.' For this occasion T. Gilbert Pearson, president of the National Association of Audubon Societies, was secured as a speaker, with lantern-slide illustrations. It was Mr. Pearson's first visit to West Virginia and his audience was fascinated by his fluent address and the many pictures which he displayed. John M. Phillips, Chairman of the Pennsylvania Game and Fish Commission, was another noted speaker of the evening.

On August 1, 1922, the League established headquarters at 727 Goff Building, Clarksburg, with a full-time state secretary in charge. Since that date the number of branch organizations has been increased from about ten to the present total of fifty; one hundred news items and stories on the wild life of the state and the work of the League, approximating 50,000 words of used copy, have gone to the more than one hundred and thirty newspapers of West Virginia and to publications outside the state; five thousand two-color posters measuring 15 x 25 inches, bearing seven half-tone cuts entitled "Our Vanishing Wild Life," have been printed and are being distributed to schools, libraries, stores, etc.; and a 24-page illustrated monthly magazine, *West Virginia Wild Life*, was inaugurated in May, 1923, as the League's official organ, over 20,000 copies of the first four issues being circulated. Through all of these mediums of publicity the protection and preservation of birds and all useful forms of wild life have been much emphasized. The League, through its widespread membership, is constantly cooperating with

the Game and Fish Commission and its game-protective force and the State Police in the enforcement of the Game and Fish Laws, including the protection of non-game birds.

The state secretary of the League in the past year has lectured before 97 audiences, representing a total of 21,262 persons. Motion pictures and colored stereopticon slides have been used on almost all of these occasions and it is estimated that between ten and twelve thousand of those reached in these talks have been school people of all grades, including college students. With them the value of birds and the necessity for their protection have invariably been stressed. Four bird-walks were conducted at different places, with



A PURPLE MARTIN VILLAGE ESTABLISHED BY THE WYNCOTE (PA.) BIRD CLUB

selected groups, on one of these occasions 56 different species being recorded.—
HOWARD H. CLEAVES, *Secretary*.

Wyncote (Pa.) Bird Club.—The most important event this year in the Wyncote Bird Club was the purchase of a moving-picture machine for our very own. Money for this was subscribed at a meeting scheduled to show moving pictures, when the machine and operator engaged to come from Philadelphia disappointed us for the second time. The indignation of the Club was at its height, and since it could not get at the operator to scalp him, it did the next best thing—voted to buy its own machine. Since then we have had no trouble in easily working up good programs and the meetings are always well attended. We have had some beautiful bird and animal pictures by the Finleys and Herbert K. Job, secured from the National Association. We also showed 'The Birds of Killingworth' which is founded on Longfellow's poem of that name. Next week we are to have our first 'open-air movies' when we are to show bird and outing pictures taken at Buck Hill Falls, Pa., by Ernest Corts, former president of our Club. •

The moving pictures have by no means detracted from the other activities of the Club, but have served to gather large audiences to hear the more serious and personal side of bird-work. We have had the usual 'experience meetings' when all take part, and the children especially enjoy telling what they have seen. We feel that these discussions are very valuable, not only in teaching the children to keep their eyes and ears open, but to express themselves in public. Mr. Ernest Harold Baynes gave us his very fine illustrated lecture 'The Truth about Vivisection,' after which there was an open discussion and a resolution unanimously passed approving the use of animals for vivisection purposes. Mr. Robert R. Logan, president of the American Antivivisection Society, answered Mr. Baynes in a lecture a few weeks later, and after his address another resolution was unanimously passed by the Club heartily endorsing animal experimentation because it believed this to be necessary to the welfare of human beings and animals.

The usual bird-walks were taken, and several campfire breakfasts were held in a woods near Wyncote, at one of which 43 members were present, showing that enthusiasm for birds and the out-of-doors has not waned in Wyncote.—(Miss) ESTHER HEACOCK, *Secretary*.

JOHN H. KOCH & COMPANY, Certified Public Accountants
55 Liberty Street, New York

October 25, 1923.

THE AUDIT COMMITTEE,
National Association of Audubon Societies, Inc.,
1974 Broadway, New York, N. Y.

Gentlemen:—We have completed our customary examination of the books, accounts, and records of the National Association of Audubon Societies, Inc., for the year ended October 19, 1923, and present herewith the following Exhibits:

- EXHIBIT A—BALANCE SHEET AS AT THE CLOSE OF BUSINESS, OCTOBER 19, 1923.
- EXHIBIT B—INCOME AND EXPENSE ACCOUNT, GENERAL FUND.
- EXHIBIT C—INCOME AND EXPENSE STATEMENT, EGRET PROTECTION FUND.
- EXHIBIT D—INCOME AND EXPENSE STATEMENT, CHILDREN'S EDUCATIONAL FUND.
- EXHIBIT E—INCOME AND EXPENSE STATEMENT, DEPARTMENT OF APPLIED ORNITHOLOGY.
- EXHIBIT F—CASH STATEMENT, ROOSEVELT MEMORIAL FUND.
- EXHIBIT G—PERMANENT FUND, 1922.
- EXHIBIT H—FUND FOR NATIONAL PARKS' DEFENSE.
- EXHIBIT I—INTERNATIONAL BIRD PROTECTION FUND.
- EXHIBIT J—BUILDING FUND.
- EXHIBIT K—STATEMENT OF RECEIPTS AND DISBURSEMENTS.

All disbursements made on account of your various funds were substantiated either by duly approved vouchers or cancelled endorsed checks.

We examined all investments held at the safe deposit vaults, accompanied by your Dr. Jonathan Dwight and Mr. Samuel T. Carter. All investments were found to be in order.

Confirmations were received from your depositories certifying to the balances as shown on your books.

Submitting the foregoing, we are

Very truly yours,
JOHN H. KOCH & CO.,
Certified Public Accountants

The Report of the Treasurer of the National Association of Audubon Societies, for Year Ending October 19, 1923

Exhibit A

ASSETS

<i>Cash in Banks and at Office (Exhibit K)</i>		\$29,268 30
<i>Account Receivable</i>		500 00
<i>Furniture and Fixtures—</i>		
Balance October 19, 1922	\$1,753 02	
Additions this year	450 54	
	<hr/>	
	\$2,203 56	
Less—Depreciation	220 36	
	<hr/>	1,983 20
<i>Inventory of Plates, etc. (Nominal Value)</i>		500 00
<i>Bird Island Purchase, Orange Lake, Fla.</i>	\$250 20	
<i>Buzzard Island, S. C.</i>	300 00	550 20
	<hr/>	
<i>Gasoline Boat</i>		26 45
<i>Investments, Endowment Fund—</i>		
Bonds and Mortgages on Manhattan and Bronx		
Real Estate	\$495,412 50	
U. S. Government Obligations (Par \$9,000.00)...	9,035 00	
Canadian Bonds (Par \$5,000.00)	5,100 00	
	<hr/>	\$509,547 50
<i>Mary Dutcher Memorial Fund—</i>		
Bonds and Mortgage on Manhattan and Bronx Real Estate...	7,100 00	
<i>Roosevelt Memorial Fund—</i>		
U. S. Government Obligation (Par \$16,000.00)	15,872 15	
<i>Surplus Funds—</i>		
U. S. Government Obligation (Par \$5,000.00)	5,000 00	
<i>Permanent Fund of 1922—</i>		
Bonds and Mortgages on Manhattan and Bronx		
Real Estate	\$189,000 00	
U. S. Government Obligation (Par \$11,500.00) ..	11,546 19	200,546 19
	<hr/>	
Total Investments		738,065 84
<i>Prepaid Interest on Investment—</i>		19 94
	<hr/>	
Total Assets		\$770,913 93

LIABILITIES AND SURPLUS

Endowment Fund—

Balance, October 19, 1922.....		\$480,939 31
Received from Life Members and Patron....	\$14,430 00	
Received in Gifts.....	451 00	
Bequest.....	15,000 00	29,881 00

Transfer of Surplus in excess of \$10,000.00 at October 19, 1923.....		1,956 76
--	--	----------

<i>Balance, October 19, 1923.....</i>		\$512,777 07
---------------------------------------	--	---------------------

Mary Dutcher Memorial Fund—

Balance, October 19, 1923.....		7,737 70
--------------------------------	--	----------

Permanent Fund of 1922—

Balance, October 19, 1923 (Per Exhibit G).....		201,851 42
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Special Funds—

Egret Protection Fund (Per Exhibit C).....	\$2,637 13	
Children's Educational Fund (Per Exhibit D).....	1,587 36	
Department of Applied Ornithology (Per Exhibit E).....	50 85	
Roosevelt Memorial Fund (Per Exhibit F).....	16,088 14	
Fund for National Parks' Defense (Per Exhibit H).....	1,606 34	
International Bird Protection Fund (Per Exhibit I).....	1,007 80	
Building Fund (Per Exhibit J).....	4,402 32	
		27,379 94

<i>Account Payable.....</i>		11,167 8c
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Surplus—

Balance, October 19, 1922.....	\$10,000 00	
Add: Gain for year ended October 19, 1923, from Income Account (Exhibit B).....	1,956 76	

\$11,956 76

Deduct: Transfer of Excess above \$10,000.00 to Endow- ment Fund.....	1,956 76	
--	----------	--

<i>Balance, October 19, 1923.....</i>		10,000 00
---------------------------------------	--	------------------

<i>Total Liabilities and Surplus.....</i>		\$770,913 93
---	--	---------------------

INCOME AND EXPENSE ACCOUNT—General Fund

INCOME

Exhibit B

<i>Members' Dues</i>	\$29,975 00
<i>Contributions</i>	5,135 51
<i>Income from Investments</i>	28,898 44
SUPPLY DEPARTMENT RECEIPTS—	
Bird-Books.....	\$3,150 65
BIRD-LORE.....	639 80
Bulletins.....	100 38
Cabinets.....	528 51
Charts.....	539 00
Educational Leaflets.....	5,680 24
Field-Glasses.....	2,616 48
Slides.....	537 20
	<hr/>
	13,792 26
<i>Total Income</i>	\$77,801 21

EXPENSE

WARDENS' SERVICES AND RESERVATIONS—

Salaries.....	\$430 00
Reservation Expense.....	571 34
	<hr/>
	\$1,001 34

EDUCATIONAL EFFORT—

Administrative Expense.....	\$9,397 81
BIRD-LORE, Extra Pages, Annual Report.....	2,533 38
BIRD-LORE to Members.....	6,405 56
Bird-Books.....	1,479 99
Colored Plates in BIRD-LORE.....	273 24
Contribution to Montana Sportmen's Association.....	50 00
Drawings.....	135 00
Educational Leaflets.....	3,785 53
Electros, Halftones, Prints, and Negatives.....	1,581 04
Field Agents' Salaries and Expenses.....	4,785 40
Field-Glasses.....	2,165 47
Legislation.....	360 76
Library.....	300 24
Printing, Office and Field Agents'.....	1,156 08
Slides.....	608 70
	<hr/>
	35,018 20
<i>Amount carried forward</i>	\$36,010 54

INCOME AND EXPENSE ACCOUNT, General Fund—continued

Amount brought forward.....		\$36,019 54
GENERAL EXPENSE—		
Annual Meeting Expense.....	\$361 44	
Auditing.....	125 00	
Cartage and Express.....	121 87	
Depreciation on Office Furniture and Equipment.....	220 36	
Electric Light.....	49 13	
Exchange Charges on Checks.....	25 97	
Envelopes and Supplies.....	1,388 85	
Insurance.....	158 61	
Legal Services.....	360 00	
Miscellaneous.....	1,282 49	
Multigraphing.....	52 95	
Office and Storeroom Rentals.....	2,324 43	
Office Assistants.....	9,862 18	
Postage.....	385 68	
Publicity and Propaganda.....	15,603 62	
Stencils for Addressograph Machine.....	114 27	
Supply Department Expenses.....	7,056 00	
Telegrams and Telephone.....	332 06	
<i>Total Expense.....</i>		<i>39,824 91</i>
<i>Balance, being Net Profit for year, carried to Surplus (Per Exhibit A).</i>		<i>1,956 76</i>
		<hr/>
		<i>\$77,801 21</i>

EGRET PROTECTION FUND

INCOME AND EXPENSE STATEMENT

Exhibit C

<i>Balance, October 19, 1922.....</i>		<i>\$2,549 07</i>
INCOME—		
Contributions.....		2,286 50
		<hr/>
		<i>\$4,835 57</i>
EXPENSES—		
Egret Wardens and Expenses.....	\$2,058 25	
Inspection of Rookeries.....	140 19	
	<hr/>	<i>2,198 44</i>
<i>Balance, unexpended, October 19, 1923 (Per Exhibit A).....</i>		<i>\$2,637 13</i>

CHILDREN'S EDUCATIONAL FUND

INCOME AND EXPENSE STATEMENT

Exhibit D

Balance, October 19, 1922.....		\$2,319 01
INCOME—		
Contributions.....	\$18,937 30	
Junior Members' Fees.....	25,196 70	
	<hr/>	
	\$44,134 00	
Transfer of Income from Permanent Fund of 1922.....	11,273 75	55,407 75
	<hr/>	
		\$57,726 76
EXPENSES—		
Administration Expense.....	\$1,500 00	
BIRD-LORE to Junior Clubs.....	5,161 88	
Buttons to Junior Clubs.....	1,989 01	
Colored Plates in BIRD-LORE.....	273 23	
Cartage and Express.....	231 44	
Drawings.....	185 00	
Electro Blocks and Halftones.....	928 23	
Field Agents' Salaries and Expenses.....	7,472 54	
Miscellaneous.....	399 54	
Office Rent.....	1,108 52	
Office Supplies.....	245 85	
Postage on Circulars and Literature.....	7,000 00	
Printed Circulars to Teachers.....	2,045 60	
Printed Envelopes.....	829 50	
Printed Leaflet Units for Junior Members.....	16,556 10	
Reports and Publicity.....	2,683 35	
Soliciting for Junior Members.....	530 75	
Stenographic and Clerical Work.....	6,998 86	56,139 40
	<hr/>	
Balance Unexpended, October 19, 1923, (Per Exhibit A).....		\$1,587 36

DEPARTMENT OF APPLIED ORNITHOLOGY

INCOME AND EXPENSE STATEMENT

Exhibit E

Balance, unexpended, October 19, 1922.....		\$34 85
INCOME—		
Earnings of Mr. H. K. Job, Public Lecturer.....	\$648 00	
Rental and Sale of Films.....	1,563 00	
Contributions.....	100 00	2,311 00
	<hr/>	
		\$2,345 85
EXPENSES—		
Agents' Salary and Expense.....		2,295 00
	<hr/>	
Balance, unexpended, October 19, 1923 (Per Exhibit A).....		\$50 85

ROOSEVELT MEMORIAL FUND

CASH STATEMENT

Exhibit F

Balance, uninvested, October 19, 1922..... \$3,613 07

RECEIPTS—

Income from Investments—

Interest on U. S. Government Obligations.....	\$570 00	
Interest on Bank Balance	65 42	635 42
		<hr/>
		\$4,248 49

DISBURSEMENTS—

Investment in U. S. Government Obligations and accrued Interest.....		4,052 44
		<hr/>

Balance, uninvested, October 19, 1923 (Per Exhibit A)..... \$196 05

Receipts.....	\$16,088 14	
Investments made.....	\$15,872 15	
Prepaid Interest.....	19 94	15,892 09
		<hr/>
		\$196 05

PERMANENT FUND—1922

Exhibit G

For (1) The education of the general public in the knowledge and value of useful and beautiful and interesting forms of wild life, especially birds.

(2) The actual protection and perpetuation of such forms of wild life on suitable breeding and other reservations.

(3) Protecting and maintaining adequate protection for such forms of wild life in all parts of the Western Hemisphere.

Or (4) For any one of these purposes.

INCOME AND INVESTMENTS

Uninvested Balance, October 19, 1922..... \$1,305 23

INCOME FROM INVESTMENTS—

Interest on Mortgages on Manhattan and Bronx Real Estate.....	\$10,727 50	
Interest on U. S. Government Obligations.....	546 25	11,273 75
		<hr/>
		\$12,578 98

<i>Transfer of Income Received to the Children's Educational Fund</i>		11,273 75
		<hr/>

Uninvested Balance, October 19, 1923 (Per Exhibit A)..... \$1,305 23

Donor's Gift	\$200,000 00
Increases.....	1,851 42
	<hr/>

\$201,851 42

Invested.....	200,546 19
	<hr/>

\$1,305 23

FUND FOR NATIONAL PARKS' DEFENSE

INCOME AND EXPENSE STATEMENT

Exhibit H

<i>Balance, unexpended, October 19, 1922</i>	\$1,769 39	
INCOME—		
Contributions.....	1 00	
	<hr/>	\$1,770 39
EXPENSES—		
Publicity on behalf of National Parks.....	\$41 80	
Expenses of Agent Attending Meeting.....	22 25	
Contribution, National Parks Committee.....	100 00	164 05
	<hr/>	
<i>Balance, unexpended, October 19, 1923 (Per Exhibit A)</i>		\$1,606 34

INTERNATIONAL BIRD-PROTECTION FUND

Exhibit I

RECEIPTS—		
Contributions.....	\$2,600 00	
DISBURSEMENTS—		
Publicity and Propaganda.....	1,592 20	
	<hr/>	
<i>Balance, unexpended, October 19, 1923 (Per Exhibit A)</i>		\$1,007 80

BUILDING FUND

Exhibit J

RECEIPTS—		
Contributions.....	\$4,367 25	
Interest on Bank Balance.....	35 07	
	<hr/>	
<i>Balance, uninvested, October 19, 1923 (Per Exhibit A)</i>		\$4,402 32

STATEMENT OF RECEIPTS AND DISBURSEMENTS

Exhibit K

RECEIPTS—

Income, General Fund.....	\$77,801 21	
Egret Protection Fund.....	2,286 50	
Children's Educational Fund.....	44,134 00	
Department of Applied Ornithology.....	2,311 00	
Permanent Fund of 1922.....	11,273 75	
Endowment Fund.....	29,881 00	
Roosevelt Memorial Fund.....	635 42	
Fund for National Parks' Defense.....	1 00	
International Bird-Protection Fund.....	2,600 00	
Building Fund.....	4,402 32	
		\$175,326 20
Add: Account Receivable Collected.....		500 00
Cash Balance, October 19, 1922.....		40,793 96
		\$216,620 16

DISBURSEMENTS—

Expenses, General Fund.....	\$75,624 09	
Egret Protection Fund.....	2,198 44	
Children's Educational Fund.....	44,971 60	
Department of Applied Ornithology.....	2,295 00	
Fund for National Parks' Defense.....	164 05	
Surplus Invested.....	5,000 00	
Endowment Fund Investments Made.....	\$93,313 13	
Less: Investments Reduced.....	53,221 38	40,091 75
Roosevelt Fund Investments plus Accrued Interest.....	4,052 44	
International Bird-Protection Fund.....	1,592 20	
Purchase of Furniture.....	450 54	
Liquidation of Bill Unpaid, October 19, 1922.....	10,911 75	
		187,351 86
Cash Balance, October 19, 1923 (Per Exhibit A).....		\$29,268 30

NEW YORK, October 30, 1923.

T. GILBERT PEARSON, President,
National Association of Audubon Societies,
New York City.

Dear Sir:—We have examined report submitted by John H. Koch & Company, certified public accountants, of the National Association of Audubon Societies, for the year ending October 19, 1923. The accounts show balance sheets of October 19, 1923, and income and expense account for the year ending the same date. Vouchers and paid checks have been examined by them in connection with all disbursements, and also the securities in the Safe Deposit Company.

Yours very truly,

JOHN TREADWELL NICHOLS,
ROBERT CUSHMAN MURPHY,
Auditing Committee

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Audubon

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